

**cyclohexyl]-benzamide dihydrochloride.**

- To a solution of *N*-(*cis*-4-amino-cyclohexyl)-3,4-difluoro-benzamide obtained in step D of example 3031 (250 mg) in  $\text{CHCl}_3$  (5 mL) were added quinoline-2-carbaldehyde (185 mg), acetic acid (71 mg), and  $\text{NaBH}(\text{OAc})_3$  (316 mg). The reaction mixture was stirred at ambient temperature for 16
- 5 hr. The reaction was quenched with saturated aqueous  $\text{NaHCO}_3$  and the aqueous layer was extracted with  $\text{CHCl}_3$  (three times). The combined organic layer was dried over  $\text{MgSO}_4$ , filtrated, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, 20% EtOAc in hexane and silica gel, 2% to 5% MeOH in  $\text{CHCl}_3$ ) to give a colorless oil. To a solution of the above oil in EtOAc (10 mL) was added 4 M hydrogen chloride in EtOAc (0.2 mL). The mixture
- 10 was stirred at ambient temperature for 1 hr and concentrated under reduced pressure. A suspension of the above material in  $\text{Et}_2\text{O}$  (12 mL) was stirred at ambient temperature for 1 hr. The precipitate was collected by filtration, washed with  $\text{Et}_2\text{O}$ , and dried under reduced pressure to give 3,4-difluoro-*N*-(*cis*-4-[(quinolin-2-ylmethyl)-amino]-cyclohexyl)-benzamide dihydrochloride (100 mg) as a white solid.
- 15 ESI/MS *m/e* 418, *M* (free) +  $\text{Na}^+$ ;  $^1\text{H}$  NMR (300 MHz,  $\text{DMSO}-d_6$ )  $\delta$  1.50-1.68 (m, 2 H), 1.90-2.15 (m, 6 H), 3.20-3.37 (m, 1 H), 3.91-4.01 (m, 1 H), 4.53-4.66 (m, 2 H), 7.46-8.29 (m, 9 H), 8.52 (d, *J* = 8.5 Hz, 1 H), 9.44-9.62 (m, 2 H).

**20 Example 3157*****N*-[*cis*-4-(4-Methyl-quinolin-2-ylamino)-cyclohexyl]-3,5-bis-trifluoromethyl-benzamide hydrochloride**

- Step A: Synthesis of *N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-3,5-bis-**
- 25 **trifluoromethyl-benzamide hydrochloride.**

Using the procedure for the step B of example 3070, the title compound was obtained.

ESI/MS *m/e* 496, *M* (free) +  $\text{H}^+$ ;  $^1\text{H}$  NMR (300 MHz,  $\text{CDCl}_3$ )  $\delta$  1.77-2.19 (m, 8 H), 2.74 (s, 3 H), 3.98-4.31 (m, 2 H), 6.78-6.81 (m, 1 H), 7.40-7.52 (m, 1 H), 7.58-7.78 (m, 3 H), 7.85 (d, *J* = 9.2 Hz,

1 H), 7.96-8.01 (m, 1 H), 8.36-8.41 (m, 2 H), 9.49-9.64 (m, 1 H).

**Example 3158**

**5 *N*-[*cis*-4-(4-Methyl-quinolin-2-ylamino)-cyclohexyl]-3-trifluoromethoxy-benzamide hydrochloride**

**Step A: Synthesis of *N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-3-trifluoromethoxy-benzamide hydrochloride.**

- 10 Using the procedure for the step B of example 3070, the title compound was obtained.  
ESI MS *m/e* 444, M (free) + H<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.68-2.20 (m, 8 H), 2.71-2.75 (m, 3 H), 3.96-4.30 (m, 2 H), 6.76-6.87 (m, 2 H), 7.30-7.39 (m, 1 H), 7.42-7.52 (m, 2 H), 7.67-7.89 (m, 5 H), 9.50-9.72 (m, 1 H).

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**Example 3159**

***C*-(Ethyl-phenyl-amino)-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-acetamide dihydrochloride**

- 20 **Step A: Synthesis of *C*-(ethyl-phenyl-amino)-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-acetamide dihydrochloride.**

- Using the procedure for the step A of example 3071, the title compound was obtained.  
ESI MS *m/e* 417, M (free) + H<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.10-1.38 (m, 3 H), 1.59-2.05 (m, 8 H), 2.45-2.84 (m, 3 H), 3.35-4.15 (m, 6 H), 6.57-6.81 (m, 1 H), 6.85-7.52 (m, 7 H), 7.57-7.89 (m, 4 H), 9.20-9.50 (m, 1 H).
- 25

**Example 3160**

**3-Hydroxy-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride**

**Step A: Synthesis of 3-hydroxy-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride.**

- 5           Using the procedure for the step A of example 3071, the title compound was obtained.

ESI MS *m/e* 398, M (free) + Na<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>) δ 1.67-2.02 (m, 8 H), 2.53-2.70 (m, 3 H), 3.86-3.99 (m, 1 H), 4.24-4.40 (m, 1 H), 6.88-6.96 (m, 1 H), 7.06-7.31 (m, 4 H), 7.46-7.57 (m, 1 H), 7.73-7.83 (m, 1 H), 7.92-8.28 (m, 3 H), 9.66 (s, 1 H), 12.83-12.94 (m, 1 H).

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**Example 3161****2-Amino-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide dihydrochloride**

**Step A: Synthesis of 2-amino-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-**

- 15 **nicotinamide dihydrochloride.**

Using the procedure for the step A of example 3071, the title compound was obtained.

ESI MS *m/e* 376, M (free) + H<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>) δ 1.63-2.06 (m, 8 H), 2.53-2.70 (m, 3 H), 3.87-4.04 (m, 1 H), 4.36-4.59 (m, 1 H), 6.92-7.06 (m, 1 H), 7.15-7.27 (m, 1 H), 7.45-7.58 (m, 1 H), 7.69-7.84 (m, 1 H), 7.89-8.01 (m, 1 H), 8.14-8.58 (m, 4 H), 8.69-8.86 (m, 1 H), 9.54-9.72 (m, 20 1 H).

**Example 3162****2,3-Difluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride**

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**Step A: Synthesis of 2,3-difluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride.**

Using the procedure for the step B of example 3070, the title compound was obtained.

ESI MS m/e 418, M (free) + Na<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.56-2.17 (m, 8 H), 2.72 (s, 3 H), 3.88-4.04 (m, 1 H), 4.09-4.30 (m, 1 H), 6.67-6.92 (m, 2 H), 7.10-7.35 (m, 2 H), 7.41-7.52 (m, 1 H), 7.60-7.93 (m, 4 H), 9.53-9.75 (m, 1 H).

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**Example 3163****2,4-Difluoro-N-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride****Step A: Synthesis of 2,4-difluoro-N-[*cis*-4-(4-methyl-quinolin-2-ylamino)-****10 cyclohexyl]-benzamide hydrochloride.**

Using the procedure for the step B of example 3070, the title compound was obtained.

ESI MS m/e 418, M (free) + Na<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.57-2.22 (m, 8 H), 2.73 (s, 3 H), 3.87-4.06 (m, 1 H), 4.11-4.31 (m, 1 H), 6.69-7.06 (m, 4 H), 7.40-7.56 (m, 1 H), 7.65-7.88 (m, 3 H), 7.98-8.14 (m, 1 H), 9.51-9.83 (m, 1 H).

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**Example 3164****2,5-Difluoro-N-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride****20 Step A: Synthesis of 2,5-difluoro-N-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride.**

Using the procedure for the step B of example 3070, the title compound was obtained.

ESI MS m/e 418, M (free) + Na<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.46-2.14 (m, 8 H), 2.72 (s, 3 H), 3.84-4.04 (m, 1 H), 4.09-4.32 (m, 1 H), 6.77 (s, 1 H), 6.82-7.21 (m, 3 H), 7.37-7.54 (m, 1 H), 25 7.63-7.89 (m, 4 H), 9.54-9.72 (m, 1 H).

**Example 3165**



**2,6-Difluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride**

Step A: Synthesis of 2,6-difluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride.

- 5           Using the procedure for the step B of example 3070, the title compound was obtained.  
ESI MS *m/e* 418, M (free) + Na<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.72-2.08 (m, 8 H), 2.72 (s, 3 H),  
3.91-4.03 (m, 1 H), 4.13-4.33 (m, 1 H), 6.42-6.54 (m, 1 H), 6.77 (s, 1 H), 6.88-6.99 (m, 2 H),  
7.27-7.50 (m, 2 H), 7.66-7.78 (m, 2 H), 7.84 (d, *J* = 8.2 Hz, 1 H), 9.53-9.70 (m, 1 H).

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**Example 3166****3,5-Difluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride**

Step A: Synthesis of 3,5-difluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-

- 15 cyclohexyl]-benzamide hydrochloride.

Using the procedure for the step B of example 3070, the title compound was obtained.  
ESI MS *m/e* 418, M (free) + Na<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.78-2.16 (m, 8 H), 2.72 (s, 3 H),  
3.96-4.26 (m, 2 H), 6.78 (s, 1 H), 6.86-7.02 (m, 2 H), 7.33-7.52 (m, 3 H), 7.67-7.78 (m, 2 H), 7.85 (d,  
*J* = 8.2 Hz, 1 H), 9.48-9.71 (m, 1 H).

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**Example 3167**

***C*-[(4-Chloro-phenyl)-ethyl-amino]-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-acetamide dihydrochloride**

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Step A: Synthesis of *C*-[(4-chloro-phenyl)-ethyl-amino]-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-acetamide dihydrochloride.

Using the procedure for the step A of example 3071, the title compound was obtained.

ESI MS  $m/e$  451, M (free) +  $H^+$ ;  $^1H$  NMR (300 MHz,  $CDCl_3$ )  $\delta$  1.14-1.26 (m, 3 H), 1.69-2.00 (m, 8 H), 2.60 (s, 3 H), 3.39-3.61 (m, 2 H), 3.75-4.03 (m, 4 H), 6.63-7.06 (m, 4 H), 7.14-7.32 (m, 2 H), 7.39-7.51 (m, 1 H), 7.64-7.89 (m, 3 H), 9.44-9.59 (m, 1 H).

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**Example 3168**

**4-Chloro-3-fluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride**

**10 Step A: Synthesis of 4-chloro-3-fluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride.**

Using the procedure for the step A of example 3071, the title compound was obtained.

ESI MS  $m/e$  412, M (free) +  $H^+$ ;  $^1H$  NMR (300 MHz,  $CDCl_3$ )  $\delta$  1.78-2.13 (m, 8 H), 2.70-2.76 (m, 3 H), 3.95-4.28 (m, 2 H), 6.65-6.81 (m, 2 H), 7.41-7.50 (m, 2 H), 7.53-7.59 (m, 1 H), 7.65-7.77 (m, 3 H), 7.82-7.88 (m, 1 H), 9.57-9.71 (m, 1 H).

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**Example 3169**

**4-Fluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride**

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**Step A: Synthesis of 4-fluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride.**

Using the procedure for the step B of example 3070, the title compound was obtained.

ESI MS  $m/e$  378, M (free) +  $H^+$ ;  $^1H$  NMR (300 MHz,  $CDCl_3$ )  $\delta$  1.81-2.10 (m, 8 H), 2.72 (s, 3 H), 3.95-4.29 (m, 2 H), 6.65-6.81 (m, 2 H), 7.10 (t,  $J = 8.6$  Hz, 2 H), 7.42-7.51 (m, 1 H), 7.67-7.91 (m, 5 H), 9.55-9.67 (m, 1 H).

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**Example 3170****3-Fluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride**

Step A: Synthesis of 3-Fluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-

5 **benzamide hydrochloride.**

Using the procedure for the step B of example 3070, the title compound was obtained.

ESI MS *m/e* 378, *M* (free) +  $H^+$ ;  $^1H$  NMR (300 MHz,  $CDCl_3$ )  $\delta$  1.77-2.09 (m, 8 H), 2.71-2.76 (m, 3 H), 3.94-4.25 (m, 2 H), 6.54-6.65 (m, 1 H), 6.76-6.81 (m, 1 H), 7.13-7.23 (m, 1 H), 7.35-7.61 (m, 4 H), 7.67-7.88 (m, 3 H), 9.58-9.73 (m, 1 H).

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**Example 3171****2-Fluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride**

15 **Step A: Synthesis of 2-Fluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride.**

Using the procedure for the step B of example 3070, the title compound was obtained.

ESI MS *m/e* 378, *M* (free) +  $H^+$ ;  $^1H$  NMR (300 MHz,  $CDCl_3$ )  $\delta$  1.84-2.15 (m, 8 H), 2.72 (s, 3 H), 3.87-4.01 (m, 1 H), 4.13-4.29 (m, 1 H), 6.73-6.89 (m, 2 H), 7.07-7.28 (m, 2 H), 7.40-7.51 (m, 2 H), 20 7.66-7.87 (m, 3 H), 7.96-8.05 (m, 1 H), 9.62-9.72 (m, 1 H).

**Example 3172****4-Chloro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride**

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**Step A: Synthesis of 4-chloro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride.**

Using the procedure for the step B of example 3070, the title compound was obtained.

ESI MS  $m/e$  394, M (free) +  $H^+$ ;  $^1H$  NMR (300 MHz, DMSO- $d_6$ )  $\delta$  1.64-2.04 (m, 8 H), 2.55-2.70 (m, 3 H), 3.87-4.04 (m, 1 H), 4.27-4.52 (m, 1 H), 7.07-7.18 (m, 1 H), 7.46-7.58 (m, 3 H), 7.73-8.02 (m, 4 H), 8.23-8.38 (m, 2 H), 9.39-9.52 (m, 1 H), 12.96-13.10 (m, 1 H).

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**Example 3173****2-Hydroxy-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide hydrochloride****Step A: Synthesis of 2-Hydroxy-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-****10 nicotinamide hydrochloride.**

Using the procedure for the step A of example 3071, the title compound was obtained.

ESI MS  $m/e$  399, M (free) +  $Na^+$ ;  $^1H$  NMR (300 MHz, DMSO- $d_6$ )  $\delta$  1.46-1.99 (m, 8 H), 2.53-2.72 (m, 3 H), 4.02-4.15 (m, 1 H), 4.20-4.45 (m, 1 H), 6.46-6.56 (m, 1 H), 6.95-7.08 (m, 1 H), 7.45-7.57 (m, 1 H), 7.69-7.83 (m, 2 H), 7.90-8.47 (m, 3 H), 10.08-10.27 (m, 1 H), 12.48-12.63 (m, 1 H).

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**Example 3174*****N*-[*cis*-4-(4-Methyl-quinolin-2-ylamino)-cyclohexyl]-isophthalamic acid-methyl ester hydrochloride**

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**Step A: Synthesis of *N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-isophthalamic acid methyl ester hydrochloride.**

Using the procedure for the step A of example 3071, the title compound was obtained.

ESI MS  $m/e$  440, M (free) +  $Na^+$ ;  $^1H$  NMR (300 MHz,  $CDCl_3$ )  $\delta$  1.78-2.21 (m, 8 H), 2.73 (d,  $J = 1.1$  Hz, 3 H), 3.92-4.07 (m, 4 H), 4.13-4.29 (m, 1 H), 6.78 (s, 1 H), 6.99-7.10 (m, 1 H), 7.40-7.57 (m, 2 H), 7.67-7.79 (m, 2 H), 7.82-7.89 (m, 1 H), 8.02-8.19 (m, 2 H), 8.46-8.52 (m, 1 H), 9.46-9.65 (m, 1 H).

**Example 3175****6-Chloro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide hydrochloride****5 Step A: Synthesis of 6-chloro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide hydrochloride.**

Using the procedure for the step A of example 3071, the title compound was obtained.

ESI MS *m/e* 417, M (free) + Na<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>) δ 1.67-2.03 (m, 8 H), 2.54-2.72 (m, 3 H), 3.91-4.06 (m, 1 H), 4.26-4.42 (m, 1 H), 7.05-7.18 (m, 1 H), 7.45-7.57 (m, 1 H), 7.63-7.69 (m, 1 H), 7.73-7.83 (m, 1 H), 7.91-8.04 (m, 1 H), 8.17-8.31 (m, 2 H), 8.51-8.62 (m, 1 H), 8.83-8.89 (m, 1 H), 9.33-9.51 (m, 1 H), 12.86-13.03 (m, 1 H).

**Example 3176****15 6-Dimethylamino-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide dihydrochloride****Step A: Synthesis of 6-dimethylamino-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide dihydrochloride.**

20 To a solution of 6-chloro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide obtained in step A of example 3175 (250 mg) in IPA (1 mL) were added 50% aqueous Me<sub>2</sub>NH (63 mg) and iPr<sub>2</sub>NEt (172 mg). The mixture was stirred at reflux for 5 hr, added 50% aqueous Me<sub>2</sub>NH (120 mg), and stirred at reflux for 5 hr. The reaction was quenched with saturated aqueous NaHCO<sub>3</sub> and the aqueous layer was extracted with CHCl<sub>3</sub>  
25 (three times). The combined organic layer was dried over MgSO<sub>4</sub>, filtrated, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, EtOAc). To a solution of the above material in EtOH (3 mL) was added 4 M hydrogen chloride in EtOAc (0.47 mL). The mixture was stirred at ambient temperature for 1 hr and

- concentrated under reduced pressure. A suspension of the above material in Et<sub>2</sub>O (3 mL) was stirred at ambient temperature for 4 hr. The precipitate was collected by filtration, washed with Et<sub>2</sub>O, and dried under reduced pressure to give 6-dimethylamino-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide dihydrochloride (200 mg) as a
- 5 white solid.

ESI MS *m/e* 426, *M* (free) + Na<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.73-2.13 (m, 8 H), 2.63-2.80 (m, 3 H), 3.34-3.61 (m, 6 H), 3.91-4.28 (m, 2 H), 6.70-7.07 (m, 2 H), 7.35-8.10 (m, 5 H), 8.29-8.46 (m, 1 H), 8.82-8.98 (m, 1 H), 9.36-9.51 (m, 1 H).

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#### Example 3177

#### 3-Hydroxymethyl-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride

- 15 **Step A: Synthesis of 3-hydroxymethyl-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride.**

- To a suspension of LiAlH (18 mg) in Et<sub>2</sub>O (5 mL) was added *N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-isophthalamic acid methyl ester obtained in step A of example 3174 (200 mg) in Et<sub>2</sub>O (2 mL). The mixture was stirred at ambient temperature for 3 hr. The reaction was quenched
- 20 with water and the aqueous layer was extracted with CHCl<sub>3</sub> (three times). The combined organic layer was dried over MgSO<sub>4</sub>, filtrated, concentrated under reduced pressure and purified by medium-pressure liquid chromatography (silica gel, 3% to 10% MeOH in CHCl<sub>3</sub>). To a solution of the above material in EtOH (2 mL) was added 4 M hydrogen chloride in EtOAc (0.24 mL). The mixture was stirred at ambient temperature for 2 hr and concentrated under reduced pressure. A
- 25 suspension of the above material in Et<sub>2</sub>O (3 mL) was stirred at ambient temperature for 1 hr. The precipitate was collected by filtration, washed with Et<sub>2</sub>O, and dried at 70 °C under reduced pressure to give 3-hydroxymethyl-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride (93 mg) as a white solid.

ESI MS  $m/e$  390, M (free) +  $H^+$ ;  $^1H$  NMR (300 MHz, DMSO- $d_6$ )  $\delta$  1.66-2.02 (m, 8 H), 2.61 (s, 3 H), 3.87 (brs, 1 H), 4.22-4.42 (m, 1 H), 4.55 (s, 2 H), 7.03-7.17 (m, 1 H), 7.35-7.59 (m, 3 H), 7.67-7.87 (m, 3 H), 7.91-8.04 (m, 1 H), 8.11-8.31 (m, 2 H), 12.75-12.96 (m, 1 H).

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**Example 3178*****N*-[*cis*-4-(4-Methyl-quinolin-2-ylamino)-cyclohexyl]-isophthalamide hydrochloride****Step A: Synthesis of *N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-isophthamic acid**10 **methyl ester.**

To a solution of isophthalic acid monomethyl ester (400 mg) and *N*-(*cis*-4-methyl-quinolin-2-yl)-cyclohexane-1,4-diamine in step A of example 3070 (400 mg) in DMF (4 mL) were added  $Et_3N$  (0.52 mL),  $HOBt \cdot H_2O$  (358 mg), and EDC-HCl (330 mg). The reaction mixture was stirred at ambient temperature for 12 hr. To the reaction mixture was added water (20 mL) and the

15 suspension was stirred at ambient temperature for 30 min. The precipitated was collected by filtration, washed with  $H_2O$ , and purified by medium-pressure liquid chromatography (silica gel, 9% MeOH in  $CHCl_3$ ) to give *N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-isophthamic acid methyl ester (740 mg) as a white solid.

ESI MS  $m/e$  440, M +  $Na^+$ ;  $^1H$  NMR (200 MHz,  $CDCl_3$ )  $\delta$  1.59-2.09 (m, 8 H), 2.58 (s, 3 H), 3.96 (s, 20 3 H), 4.02-4.29 (m, 2 H), 4.72-4.87 (m, 1 H), 6.12-6.27 (m, 1 H), 6.48-6.59 (m, 1 H), 7.17-7.30 (m, 1 H), 7.45-7.82 (m, 4 H), 8.00-8.22 (m, 2 H), 8.32-8.39 (m, 1 H).

**Step B: Synthesis of *N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-isophthalamide hydrochloride.**

25 To a solution of *N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-isophthamic acid methyl ester (150 mg) in EtOH (4.5 mL) was added 2 M aqueous NaOH (0.27 mL). The reaction mixture was stirred at ambient temperature for 13 hr. To the reaction mixture was added 1 M aqueous HCl (0.3 mL) and the aqueous layer was extracted with  $CHCl_3$  (three times).

- The combined organic layer was dried over  $\text{MgSO}_4$ , filtered, concentrated under reduced pressure, purified by medium-pressure liquid chromatography (silica gel, 1% to 5% MeOH in  $\text{CHCl}_3$ ) to give a white solid. To a solution of the above solid in DMF (2 mL) was added 28% aqueous  $\text{NH}_3$  (21 mg),  $\text{Et}_3\text{N}$  (0.1 mL), HOBT- $\text{H}_2\text{O}$  (67 mg), and EDC-HCl (67 mg). The reaction mixture was stirred at ambient temperature for 12 hr. To the reaction mixture was added water (20 mL) and the aqueous layer was extracted with  $\text{CHCl}_3$  (three times). The combined organic layer was dried over  $\text{MgSO}_4$ , filtered, concentrated under reduced pressure, purified by medium-pressure liquid chromatography (NH-silica gel, 3% to 9% MeOH in  $\text{CHCl}_3$ ). The solution of above material in EtOAc (10 mL) was added 4 M hydrogen chloride in EtOAc (0.2 mL). The mixture was stirred at ambient temperature for 1 hr and concentrated under reduced pressure. A suspension of the above material in  $\text{Et}_2\text{O}$  (12 mL) was stirred at ambient temperature for 2 hr. The precipitate was collected by filtration, washed with  $\text{Et}_2\text{O}$ , and under reduced pressure to give *N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-isophthalamide hydrochloride.
- ESI MS *m/e* 403, *M* (free) +  $\text{H}^+$ ;  $^1\text{H}$  NMR (300 MHz,  $\text{DMSO}-d_6$ )  $\delta$  1.69-2.04 (m, 8 H), 2.56-2.63 (m, 3 H), 3.92-4.06 (m, 1 H), 4.28-4.48 (m, 1 H), 7.06-7.17 (m, 1 H), 7.41-7.58 (m, 3 H), 7.70-8.04 (m, 3 H), 8.06-8.43 (m, 3 H), 9.35-9.54 (m, 1 H), 12.87-13.07 (m, 1 H).

#### Example 3179

- 20 **3-Chloro-5-fluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride**

Step A: Synthesis of 3-chloro-5-fluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride.

- 25 Using the procedure for the step A of example 3071, the title compound was obtained.

ESI MS *m/e* 412, *M* (free) +  $\text{H}^+$ ;  $^1\text{H}$  NMR (300 MHz,  $\text{CDCl}_3$ )  $\delta$  1.79-2.12 (m, 8 H), 2.73 (d,  $J = 0.9$  Hz, 3 H), 3.96-4.22 (m, 2 H), 6.75-6.90 (m, 2 H), 7.17-7.25 (m, 1 H), 7.42-7.51 (m, 2 H), 7.59-7.89 (m, 4 H), 9.51-9.72 (m, 1 H).



**Example 3180**

**3,4,5-Trifluoro-N-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride**

5

**Step A: Synthesis of 3,4,5-trifluoro-N-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride.**

Using the procedure for the step A of example 3071, the title compound was obtained.

ESI MS *m/e* 414, M (free) + H<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.76-2.16 (m, 8 H), 2.73 (d, *J* = 1.1 Hz, 3 H), 3.97-4.24 (m, 2 H), 6.78 (s, 1 H), 6.92-7.04 (m, 1 H), 7.41-7.60 (m, 3 H), 7.68-7.77 (m, 2 H), 7.82-7.89 (m, 1 H), 9.50-9.64 (m, 1 H).

**Example 3181**

15 **Pyridine-2-carboxylic acid [*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-amide hydrochloride**

**Step A: Synthesis of pyridine-2-carboxylic acid [*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-amide hydrochloride.**

20 Using the procedure for the step A of example 3071, the title compound was obtained.

ESI MS *m/e* 383, M (free) + Na<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>) δ 1.63-2.07 (m, 8 H), 2.54-2.71 (m, 3 H), 4.00-4.13 (m, 1 H), 4.49-4.62 (m, 1 H), 7.10-7.20 (m, 1 H), 7.46-7.56 (m, 1 H), 7.61-8.12 (m, 5 H), 8.33-8.42 (m, 2 H), 8.65-8.72 (m, 1 H), 9.46-9.60 (m, 1 H), 13.23-13.38 (m, 1 H).

25

**Example 3182**

**N-[*cis*-4-(4-Methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide hydrochloride**

**Step A: Synthesis of *N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide hydrochloride.**

Using the procedure for the step A of example 3071, the title compound was obtained.

ESI MS *m/e* 383, *M* (free) + Na<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>) δ 1.76-2.05 (m, 8 H), 2.54-2.73 (m, 3 H), 3.93-4.07 (m, 1 H), 4.29-4.48 (m, 1 H), 7.10-7.19 (m, 1 H), 7.47-7.57 (m, 1 H), 7.72-7.85 (m, 2 H), 7.92-8.04 (m, 1 H), 8.21-8.33 (m, 1 H), 8.48-8.57 (m, 1 H), 8.65-8.73 (m, 1 H), 8.82-8.89 (m, 1 H), 9.14-9.20 (m, 1 H), 9.42-9.58 (m, 1 H), 12.93-13.08 (m, 1 H).

**10 Example 3183**

***N*-[*cis*-4-(4-Methyl-quinolin-2-ylamino)-cyclohexyl]-isonicotinamide hydrochloride**

**Step A: Synthesis of *N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-isonicotinamide hydrochloride.**

Using the procedure for the step A of example 3071, the title compound was obtained.

ESI MS *m/e* 383, *M* (free) + Na<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>) δ 1.68-2.08 (m, 8 H), 2.53-2.71 (m, 3 H), 3.92-4.08 (m, 1 H), 4.33-4.54 (m, 1 H), 7.11-7.22 (m, 1 H), 7.43-7.60 (m, 1 H), 7.69-7.86 (m, 1 H), 7.89-8.41 (m, 4 H), 8.81-9.07 (m, 3 H), 9.48-9.67 (m, 1 H), 13.03-13.24 (m, 1 H).

**20**

**Example 3184**

**4-Chloro-pyridine-2-carboxylic acid [*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-amide hydrochloride**

**25 Step A: Synthesis of 4-Chloro-pyridine-2-carboxylic acid [*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-amide hydrochloride.**

Using the procedure for the step A of example 3071, the title compound was obtained.

ESI MS *m/e* 417, *M* (free) + Na<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>) δ 1.62-2.05 (m, 8 H), 2.53-2.72 (m,

3 H), 3.99-4.51 (m, 2 H), 7.04-7.15 (m, 1 H), 7.46-7.57 (m, 1 H), 7.72-7.85 (m, 2 H), 7.92-8.10 (m, 2 H), 8.16-8.29 (m, 1 H), 8.39 (d,  $J = 8.1$  Hz, 1 H), 8.66 (d,  $J = 5.3$  Hz, 1 H), 9.32-9.51 (m, 1 H), 12.93-13.08 (m, 1 H).

5

**Example 3185****5-Bromo-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide dihydrochloride****Step A: Synthesis of 5-bromo-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-**10 **nicotinamide dihydrochloride.**

Using the procedure for the step A of example 3071, the title compound was obtained.

ESI MS  $m/e$  439, M (free) +  $H^+$ ;  $^1H$  NMR (300 MHz, DMSO- $d_6$ )  $\delta$  1.71-2.02 (m, 8 H), 2.54-2.71 (m, 3 H), 3.88-4.08 (m, 1 H), 4.25-4.50 (m, 1 H), 7.06-7.18 (m, 1 H), 7.47-7.56 (m, 1 H), 7.70-7.83 (m, 1 H), 7.91-8.04 (m, 1 H), 8.19-8.33 (m, 1 H), 8.43-8.64 (m, 2 H), 8.86-8.88 (m, 1 H), 8.97-8.99 (m, 15 1 H), 9.35-9.50 (m, 1 H), 12.89-13.08 (m, 1 H).

**Example 3186*****N*-[*cis*-4-(4-Methyl-quinolin-2-ylamino)-cyclohexyl]-6-trifluoromethyl-nicotinamide**20 **hydrochloride****Step A: Synthesis of *N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-6-trifluoromethyl-nicotinamide hydrochloride.**

Using the procedure for the step A of example 3071, the title compound was obtained.

25 ESI MS  $m/e$  451, M (free) +  $Na^+$ ;  $^1H$  NMR (300 MHz, DMSO- $d_6$ )  $\delta$  1.58-2.04 (m, 8 H), 2.53-2.75 (m, 3 H), 3.91-4.09 (m, 1 H), 4.22-4.44 (m, 1 H), 7.03-7.22 (m, 1 H), 7.45-7.59 (m, 1 H), 7.71-7.85 (m, 1 H), 7.91-8.10 (m, 2 H), 8.15-8.30 (m, 1 H), 8.42-8.54 (m, 1 H), 8.64-8.81 (m, 1 H), 9.12-9.21 (m, 1 H), 9.33-9.54 (m, 1 H), 12.88-13.00 (m, 1 H).

**Example 3137****6-Imidazol-1-yl-N-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide****5 dihydrochloride**

**Step A: Synthesis of 6-Imidazol-1-yl-N-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide dihydrochloride.**

- To a solution of 6-chloro-N-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-  
10 nicotinamide obtained in step A of example 3175 (250 mg) in BuOH (1 mL) were added imidazole (47 mg) and  $iPr_2NEt$  (172 mg). The mixture was heated in a microwave synthesizer at 220°C for 10 min and 230°C for 20 min. To the mixture was added saturated aqueous  $NaHCO_3$  and the aqueous layer was extracted with  $CHCl_3$  (three times). The combined organic layer was dried over  $MgSO_4$ ,  
15 filtrated, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, 50% in EtOAc in hexane). To a solution of the above material in EtOAc (10 mL) was added 4 M hydrogen chloride in EtOAc (0.2 mL). The mixture was stirred at ambient temperature for 1 hr and concentrated under reduced pressure. A suspension of the above material in  $Et_2O$  (12 mL) was stirred at ambient temperature for 4 hr. The precipitate was collected by filtration, washed with  $Et_2O$ , and dried under reduced pressure to give  
20 6-Imidazol-1-yl-N-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide dihydrochloride (83 mg) as a white solid.

ESI MS  $m/e$  427, M (free) +  $H^+$ ;  $^1H$  NMR (300 MHz,  $DMSO-d_6$ )  $\delta$  1.35-2.39 (m, 8 H), 2.60-2.81 (m, 3 H), 3.92-4.28 (m, 2 H), 6.63-6.92 (m, 1 H), 7.09-8.23 (m, 8 H), 8.53-8.82 (m, 1 H), 8.95-9.41 (m, 2 H), 9.96-10.17 (m, 1 H), 13.97-14.19 (m, 1 H).

25

**Example 3188****N-[*cis*-4-(4-Dimethylamino-quinolin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide**

**hydrochloride****Step A: Synthesis of *N*-[*cis*-4-(4-dimethylamino-quinolin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide hydrochloride.**

- 5 To a solution of 3,4-difluoro-benzoic acid (199 mg) and *N*<sup>2</sup>-(*cis*-4-amino-cyclohexyl)-*N*<sup>4</sup>-methyl-quinoline-2,4-diamine obtained in step E of example 1 (300 mg) in DMF (3 mL) were added Et<sub>3</sub>N (0.35 mL), HOBT-H<sub>2</sub>O (241 mg), and EDC-HCl (242 mg). The reaction mixture was stirred at ambient temperature for 15 hr. To the mixture was added water (4.8 mL) and the aqueous layer was extracted with CHCl<sub>3</sub> (three times). The combined organic layer was dried over
- 10 MgSO<sub>4</sub>, filtered, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, 20% EtOAc in hexane). To a solution of the above material in EtOAc (4 mL) was added 4 M hydrogen chloride in EtOAc (0.5 mL). The mixture was stirred at ambient temperature for 1 hr. The precipitate was collected by filtration, washed with EtOAc, and dried under reduced pressure to give *N*-[*cis*-4-(4-dimethylamino-quinolin-2-ylamino)-cyclohexyl]-3,4-difluoro-
- 15 benzamide hydrochloride (263 mg) as a white solid.

ESI MS *m/e* 425, *M* (free) + H<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.69-2.20 (m, 8 H), 3.24 (s, 6 H), 3.81-4.30 (m, 2 H), 5.82 (s, 1 H), 6.74-6.88 (m, 1 H), 7.10-7.40 (m, 2 H), 7.51-7.98 (m, 5 H), 8.86-8.99 (m, 1 H), 13.44-13.63 (m, 1 H).

20

**Example 3189****5-Nitro-thiophene-3-carboxylic acid [*cis*-4-(4-dimethylamino-quinolin-2-ylamino)-cyclohexyl]-amide hydrochloride**

- 25 **Step A: Synthesis of 5-nitro-thiophene-3-carboxylic acid [*cis*-4-(4-dimethylamino-quinolin-2-ylamino)-cyclohexyl]-amide hydrochloride.**

Using the procedure for the step A of example 3188, the title compound was obtained.

ESI MS *m/e* 462, *M* (free) + Na<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.65-2.17 (m, 8 H), 3.25 (s, 6 H),

3.82-4.00 (m, 1 H), 4.00-4.23 (m, 1 H), 5.82 (s, 1 H), 7.25-7.40 (m, 1 H), 7.58-7.97 (m, 4 H) 8.28-8.42 (m, 2 H), 8.56-8.73 (m, 1 H), 13.02-13.30 (m, 1 H).

## 5 Example 3190

*N*-[*cis*-4-(4-Dimethylamino-quinolin-2-ylamino)-cyclohexylmethyl]-3,4-difluoro-benzamide hydrochloride

### Step A: Synthesis of *N*-[*cis*-4-(4-dimethylamino-quinolin-2-ylamino)-cyclohexylmethyl]-3,4-difluoro-benzamide hydrochloride.

- To a solution of *N*<sup>2</sup>-(*cis*-4-aminomethyl-cyclohexyl)-*N*<sup>4</sup>,*N*<sup>4</sup>-dimethyl-quinoline-2,4-diamine obtained in step B of example 7 (300 mg) in CHCl<sub>3</sub> (3 mL) were added iPr<sub>2</sub>NEt (0.36 mL) and 3,4-difluoro-benzoyl chloride (194 mg). The mixture was stirred at ambient temperature for 6 hr. The reaction was quenched with saturated aqueous NaHCO<sub>3</sub> and the aqueous layer was extracted with
- 15 CHCl<sub>3</sub> (three times). The combined organic layer was dried over MgSO<sub>4</sub>, filtered, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, 9% to 20% EtOAc in hexane and 2% to 9% MeOH in CHCl<sub>3</sub>) to give *N*-[*cis*-4-(4-dimethylamino-quinolin-2-ylamino)-cyclohexylmethyl]-3,4-difluoro-benzamide hydrochloride (272 mg) as white solid.
- ESI MS *m/e* 439, M (free) + H<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.53-2.08 (m, 9 H), 3.21 (s, 6 H), 20 3.47-3.56 (m, 2 H), 3.86-3.98 (m, 1 H), 5.81 (s, 1 H), 6.95-7.09 (m, 1 H), 7.16-7.34 (m, 2 H), 7.53-7.68 (m, 2 H), 7.80-7.95 (m, 3 H), 9.08-9.22 (m, 1 H), 13.40-13.51 (m, 1 H).

## Example 3191

- 25 1-(2,3-Dichloro-phenyl)-3-[*cis*-4-(4-dimethylamino-quinolin-2-ylamino)-cyclohexylmethyl]-urea hydrochloride

Step A: Synthesis of 1-(2,3-dichloro-phenyl)-3-[*cis*-4-(4-dimethylamino-quinolin-2-

**ylamino)-cyclohexylmethyl]-urea hydrochloride.**

To a solution of *N*<sup>2</sup>-(*cis*-4-aminomethyl-cyclohexyl)-*N*<sup>4</sup>,*N*<sup>4</sup>-dimethyl-quinoline-2,4-diamine obtained in step B of example 7 (300 mg) in DMSO (3 mL) was added 1,2-dichloro-4-isocyanato-benzene (207 mg). The mixture was stirred at ambient temperature for 12 hr and poured into water.

- 5 The precipitate was filtrated, washed with water, and purified by medium-pressure liquid chromatography (NH-silica gel, 25% to 50% EtOAc in hexane). To a solution of the above material in EtOAc (2 mL) was added 4 M hydrogen chloride in EtOAc (10 mL). The mixture was stirred at ambient temperature for 1 hr and concentrated under reduced pressure. A suspension of the residue in Et<sub>2</sub>O (20 mL) was stirred at ambient temperature for 1 hr. The precipitate was collected by filtration,
- 10 washed with Et<sub>2</sub>O, and dried under reduced pressure to give

1-(2,3-dichloro-phenyl)-3-[*cis*-4-(4-dimethylamino-quinolin-2-ylamino)-cyclohexylmethyl]-urea hydrochloride (170 mg) as a white solid.

ESI MS *m/e* 486, *M*<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.51-2.18 (m, 9 H), 3.23 (s, 6 H), 3.36-3.44 (m, 2 H), 3.91-4.02 (m, 1 H), 5.78-5.88 (m, 1 H), 6.97-7.12 (m, 3 H), 7.26-7.35 (m, 1 H), 7.58-7.66 (m, 1 H), 7.86 (m, *J* = 9.0 Hz, 2 H), 8.16 (dd, *J* = 8.2, 1.7 Hz, 1 H), 8.20-8.31 (m, 1 H), 8.65-8.76 (m, 1 H), 12.98-13.21 (m, 1 H).

**Example 3192**

- 20 *N*-[*cis*-4-(4-dimethylamino-5,6,7,8-tetrahydro-quinazolin-2-ylamino)-cyclohexyl]-3,4-difluorobenzamide hydrochloride

**Step A: Synthesis of *N*-[*cis*-4-(4-dimethylamino-5,6,7,8-tetrahydro-quinazolin-2-ylamino)-cyclohexyl]-3,4-difluorobenzamide hydrochloride.**

- 25 To a solution of 3,4-difluoro-benzoic acid (199 mg) and *N*<sup>2</sup>-(*cis*-4-amino-cyclohexyl)-*N*<sup>4</sup>,*N*<sup>4</sup>-dimethyl-5,6,7,8-tetrahydro-quinazolin-2,4-diamine in step D of example 3107 (304 mg) in DMF (4 mL) were added Et<sub>3</sub>N (0.35 mL), HOBt-H<sub>2</sub>O (241 mg), and EDC-HCl (242 mg). The reaction mixture was stirred at ambient temperature for 7 hr. To the reaction mixture was added water

(20 mL) and the suspension was stirred at ambient temperature for 1 hr. The precipitated was collected by filtration, washed with H<sub>2</sub>O, and purified by medium-pressure liquid chromatography (NH-silica gel, 20% EtOAc in hexane). To a solution of the above material in EtOAc (10 mL) was added 4 M hydrogen chloride in EtOAc (0.2 mL). The mixture was stirred at ambient temperature for 1 hr. The precipitate was collected by filtration, washed with EtOAc, and dried under reduced pressure to give *N*-[*cis*-4-(4-dimethylamino-5,6,7,8-tetrahydro-quinazolin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide hydrochloride (252 mg) as a white solid.

ESI MS *m/e* 430, M (free) + H<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.56-2.22 (m, 12 H), 2.48-2.84 (m, 4 H), 3.23 (s, 6 H), 3.92-4.33 (m, 2 H), 6.51-6.77 (m, 1 H), 7.01-7.30 (m, 1 H), 7.43-7.86 (m, 2 H), 8.28-8.57 (m, 1 H), 12.56 (m, 1 H).

### Example 3193

**5-Nitro-thiophene-3-carboxylic acid [*cis*-4-(4-dimethylamino-5,6,7,8-tetrahydro-quinazolin-2-ylamino)-cyclohexyl]-amide hydrochloride**

**Step A: Synthesis of 5-nitro-thiophene-3-carboxylic acid [*cis*-4-(4-dimethylamino-5,6,7,8-tetrahydro-quinazolin-2-ylamino)-cyclohexyl]-amide hydrochloride.**

Using the procedure for the step A of example 3192, the title compound was obtained.

ESI MS *m/e* 467, M (free) + Na<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.51-2.24 (m, 12 H), 2.51-2.62 (m, 2 H), 2.67-2.81 (m, 2 H), 3.23 (s, 6 H), 3.98-4.29 (m, 2 H), 7.42-7.48 (m, 1 H), 8.22-8.29 (m, 2 H), 8.37 (s, 1 H).

### Example 3194

**1-Methyl-4-nitro-1*H*-pyrrole-2-carboxylic acid [*cis*-4-(4-dimethylamino-5,6,7,8-tetrahydro-quinazolin-2-ylamino)-cyclohexyl]-amide hydrochloride**



**Step A: Synthesis of 1-methyl-4-nitro-1*H*-pyrrole-2-carboxylic acid [*cis*-4-(4-dimethylamino-5,6,7,8-tetrahydro-quinazolin-2-ylamino)-cyclohexyl]-amide hydrochloride**

Using the procedure for the step A of example 3192, the title compound was obtained.

ESI MS *m/e* 442, *M* (free) +  $H^+$ ;  $^1H$  NMR (300 MHz,  $CDCl_3$ )  $\delta$  1.57-2.13 (m, 12 H), 2.49-2.61 (m, 2 H), 2.68-2.81 (m, 2 H), 3.22 (s, 6 H), 3.93-4.04 (m, 4 H), 4.14-4.24 (m, 1 H), 7.04-7.12 (m, 1 H), 7.23-7.27 (m, 1 H), 7.49-7.54 (m, 1 H), 8.30-8.41 (m, 1 H), 12.66-12.92 (m, 1 H).

**Example 3195**

**10 *N*-[*cis*-4-(4-Dimethylamino-5,6,7,8-tetrahydro-quinazolin-2-ylamino)-cyclohexylmethyl]-3,4-difluoro-benzamide hydrochloride**

**Step A: Synthesis of *N*-[*cis*-4-(4-dimethylamino-5,6,7,8-tetrahydro-quinazolin-2-ylamino)-cyclohexylmethyl]-3,4-difluoro-benzamide hydrochloride.**

- 15 To a solution of *N*<sup>2</sup>-(*cis*-4-aminomethyl-cyclohexyl)-*N*<sup>4</sup>,*N*<sup>6</sup>-dimethyl-5,6,7,8-tetrahydro-quinazoline-2,4-diamine in step A of example 3113 (300 mg) in  $CHCl_3$  (3 mL) were added  $iPr_2NEt$  (0.36 mL) and 3,4-difluoro-benzoyl chloride (194 mg). The mixture was stirred at ambient temperature for 17 hr. The reaction was quenched with saturated aqueous  $NaHCO_3$  and the aqueous layer was extracted with  $CHCl_3$  (three times). The combined organic layer was dried over  $MgSO_4$ ,
- 20 filtered, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, 33% EtOAc in hexane). To a solution of the above material in EtOAc (2 mL) was added 4 M hydrogen chloride in EtOAc (10 mL). The mixture was stirred at ambient temperature for 1 hr and concentrated under reduced pressure. A suspension of the residue in  $Et_2O$  (20 mL) was stirred at ambient temperature for 1 hr. The precipitate was collected by filtration,
- 25 washed with  $Et_2O$ , and dried under reduced pressure to give *N*-[*cis*-4-(4-dimethylamino-5,6,7,8-tetrahydro-quinazolin-2-ylamino)-cyclohexylmethyl]-3,4-difluoro-benzamide hydrochloride (263 mg) as a white solid.

ESI MS *m/e* 466, *M* (free) +  $Na^+$ ;  $^1H$  NMR (300 MHz,  $CDCl_3$ )  $\delta$  1.50-1.96 (m, 13 H), 2.49-2.59 (m,

2 H), 2.66-2.77 (m, 2 H), 3.21 (s, 6 H), 3.42-3.51 (m, 2 H), 4.16-4.28 (m, 1 H), 6.91-7.01 (m, 1 H), 7.17-7.26 (m, 1 H), 7.80-7.92 (m, 2 H), 8.55 (d,  $J = 8.2$  Hz, 1 H), 12.61-12.77 (m, 1 H).

### 5 Example 3196

**1-(2,3-Dichloro-phenyl)-3-[*cis*-4-(4-dimethylamino-5,6,7,8-tetrahydro-quinazolin-2-ylamino)-cyclohexylmethyl]-urea hydrochloride**

- Step A: Synthesis of 1-(2,3-dichloro-phenyl)-3-[*cis*-4-(4-dimethylamino-5,6,7,8-tetrahydro-quinazolin-2-ylamino)-cyclohexylmethyl]-urea hydrochloride.**
- To a solution of  $N^2$ -(*cis*-4-aminomethyl-cyclohexyl)- $N^4$ , $N^4$ -dimethyl-5,6,7,8-tetrahydro-quinazoline-2,4-diamine in step A of example 3113 (300 mg) in DMSO (3 mL) was added 1,2-dichloro-4-isocyanato-benzene (207 mg). The mixture was stirred at ambient temperature for 12 hr and poured into water. The precipitate was filtrated, washed with water, and purified by
- 15 medium-pressure liquid chromatography (NH-silica gel, 25% to 50% EtOAc in hexane). To a solution of the above material in EtOAc (2 mL) was added 4 M hydrogen chloride in EtOAc (10 mL). The mixture was stirred at ambient temperature for 1 hr and concentrated under reduced pressure. A suspension of the residue in Et<sub>2</sub>O (20 mL) was stirred at ambient temperature for 1 hr. The precipitate was collected by filtration, washed with Et<sub>2</sub>O, and dried under reduced pressure to give 1-(2,3-
- 20 dichloro-phenyl)-3-[*cis*-4-(4-dimethylamino-5,6,7,8-tetrahydro-quinazolin-2-ylamino)-cyclohexylmethyl]-urea hydrochloride (113 mg) as a white solid.
- ESI MS  $m/e$  491,  $M^+$ ;  $^1H$  NMR (200 MHz, CDCl<sub>3</sub>)  $\delta$  1.42-2.04 (m, 13 H), 2.46-2.80 (m, 4 H), 3.21 (s, 6 H), 3.29-3.44 (m, 2 H), 4.18-4.38 (m, 1 H), 6.80-7.22 (m, 3 H), 8.06-8.45 (m, 3 H), 12.04-12.29 (m, 1 H).

25

### Example 3197

***N*-[*cis*-4-(4-Dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide**

**hydrochloride**

Step A: Synthesis of *N*-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide hydrochloride.

- 5        Using the procedure for the step D of example 3129, the title compound was obtained.  
 ESI MS *m/e* 376, *M* (free) +  $H^+$ ;  $^1H$  NMR (300 MHz,  $CDCl_3$ )  $\delta$  1.61-2.01 (m, 8 H), 3.17 (s, 3 H), 3.28 (s, 3 H), 3.98-4.32 (m, 2 H), 5.98 (d,  $J = 7.3$  Hz, 1 H), 6.45-6.63 (m, 1 H), 7.11-7.30 (m, 1 H), 7.41-7.79 (m, 3 H), 8.67-8.94 (m, 1 H), 12.89-13.06 (m, 1 H).

10

**Example 3198**

**5-Nitro-thiophene-3-carboxylic acid [*cis*-4-(4-dimethylamino-pyrimidine-2-ylamino)-cyclohexyl]-amide hydrochloride**

- 15    **Step A: Synthesis of 5-nitro-thiophene-3-carboxylic acid [*cis*-4-(4-dimethylamino-pyrimidine-2-ylamino)-cyclohexyl]-amide hydrochloride.**

- To a solution of 5-nitro-thiophene-3-carboxylic acid (265 mg) and *cis*-*N*<sup>2</sup>-(4-amino-cyclohexyl)-*N*<sup>4</sup>,*N*<sup>4</sup>-dimethyl-pyrimidine-2,4-diamine in step C of example 3129 (300 mg) in DMF (3 mL) were added  $Et_3N$  (0.43 mL),  $HOBt \cdot H_2O$  (293 mg), and EDC-HCl (293 mg). The reaction mixture was stirred at ambient temperature for 12 hr. To the reaction mixture was added water (20 mL) and the suspension was stirred at ambient temperature for 1 hr. The precipitated was collected by filtration, washed with  $H_2O$ , and purified by medium-pressure liquid chromatography (NH-silica gel, 20% to 50% EtOAc in hexane). To a solution of the above material in EtOAc (10 mL) was added 4 M hydrogen chloride in EtOAc (2 mL). The mixture was stirred at ambient temperature for 1 hr. The precipitate was collected by filtration, washed with EtOAc, and dried under reduced pressure to give 5-nitro-thiophene-3-carboxylic acid [*cis*-4-(4-dimethylamino-pyrimidine-2-ylamino)-cyclohexyl]-amide hydrochloride (71 mg) as a white solid.

ESI MS *m/e* 413, *M* (free) +  $Na^+$ ;  $^1H$  NMR (300 MHz,  $CDCl_3$ )  $\delta$  1.62-2.02 (m, 8 H), 3.18 (s, 3 H),

3.27 (s, 3 H), 3.99-4.29 (m, 2 H) 5.99 (d,  $J = 7.5$  Hz, 1 H), 7.48-7.64 (m, 2 H), 8.34 (d,  $J = 1.8$  Hz, 1 H), 8.48 (d,  $J = 1.8$  Hz, 1 H), 8.50-8.67 (m, 1 H), 12.58-12.76 (m, 1 H).

5 **Example 3199**

**5-(4-Chloro-phenyl)-furan-2-carboxylic acid [*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-amide hydrochloride**

**Step A: Synthesis of 5-(4-Chloro-phenyl)-furan-2-carboxylic acid [*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-amide hydrochloride.**

Using the procedure for the step A of example 3198, the title compound was obtained.

ESI MS  $m/e$  462, M (free) +  $\text{Na}^+$ ;  $^1\text{H}$  NMR (300 MHz,  $\text{CDCl}_3$ )  $\delta$  1.67-2.07 (m, 8 H), 3.17 (s, 3 H), 3.28 (s, 3 H), 4.01-4.27 (m, 2 H), 5.97 (d,  $J = 6.9$  Hz, 1 H), 6.71 (d,  $J = 3.5$  Hz, 1 H), 6.76-6.87 (m, 1 H), 7.17 (d,  $J = 3.5$  Hz, 1 H), 7.36-7.55 (m, 3 H), 7.69-7.79 (m, 2 H), 8.65-8.86 (m, 1 H), 13.08-13.30 (m, 1 H).

**Example 3200**

**4'-Fluoro-biphenyl-4-carboxylic acid [*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-amide hydrochloride**

**Step A: Synthesis of 4'-Fluoro-biphenyl-4-carboxylic acid [*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-amide hydrochloride.**

Using the procedure for the step A of example 3198, the title compound was obtained.

ESI MS  $m/e$  456, M (free) +  $\text{Na}^+$ ;  $^1\text{H}$  NMR (300 MHz,  $\text{CDCl}_3$ )  $\delta$  1.66-2.06 (m, 8 H), 3.17 (s, 3 H), 3.28 (s, 3 H), 4.06-4.32 (m, 2 H), 5.97 (d,  $J = 7.3$  Hz, 1 H), 6.50-6.60 (m, 1 H), 7.09-7.20 (m, 2 H), 7.43-7.64 (m, 5 H), 7.85-7.91 (m, 2 H), 8.74-8.86 (m, 1 H), 12.98-13.23 (m, 1 H).

**Example 3201**

*N*-[*cis*-4-(4-Dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-2-(4-fluoro-phenoxy)-nicotinamide hydrochloride

5

**Step A: Synthesis of *N*-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-2-(4-fluoro-phenoxy)-nicotinamide hydrochloride.**

Using the procedure for the step A of example 3198, the title compound was obtained.

ESI MS *m/e* 473, M (free) + Na<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.62-2.05 (m, 8 H), 3.16 (s, 3 H), 10 3.26 (s, 3 H), 4.07-4.24 (m, 2 H), 5.94 (d, *J* = 7.3 Hz, 1 H), 7.09-7.20 (m, 3 H), 7.23-7.32 (m, 2 H), 7.42-7.52 (m, 1 H), 7.81-7.94 (m, 1 H), 8.20 (dd, *J* = 4.8, 2.0 Hz, 1 H), 8.54 (dd, *J* = 7.5, 2.1 Hz, 1 H), 8.70-8.80 (m, 1 H), 13.23-13.38 (m, 1 H).

15 **Example 3202**

*N*-[*cis*-4-(4-Dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-*C*-(ethyl-phenyl-amino)-acetamide dihydrochloride

**Step A: Synthesis of *N*-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-**

20 ***C*-(ethyl-phenyl-amino)-acetamide dihydrochloride.**

Using the procedure for the step A of example 3198, the title compound was obtained.

ESI MS *m/e* 419, M (free) + Na<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.14-1.35 (m, 3 H), 1.55-1.92 (m, 8 H), 3.15 (s, 3 H), 3.24 (s, 3 H), 3.45-3.64 (m, 2 H), 3.75-4.06 (m, 4 H), 5.91-6.03 (m, 1 H), 7.00-7.64 (m, 7 H), 8.32-8.48 (m, 1 H), 13.12-13.34 (m, 1 H).

25

**Example 3203**

*C*-[*cis*-(4-Chloro-phenyl)-ethyl-amino]-*N*-[4-(4-dimethylamino-pyrimidin-2-ylamino)-

**cyclohexyl]-acetamide dihydrochloride**

**Step A: Synthesis of *N*-[*cis*-(4-chloro-phenyl)-ethyl-amino]-*N*-[4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-acetamide dihydrochloride.**

5        Using the procedure for the step A of example 3198, the title compound was obtained.

ESI MS *m/e* 431, M (free) + H<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.12-1.24 (m, 3 H), 1.51-1.96 (m, 8 H), 3.15 (s, 3 H), 3.25 (s, 3 H), 3.43-3.55 (m, 2 H), 3.74-3.98 (m, 3 H), 4.01-4.18 (m, 1 H), 5.88-6.02 (m, 1 H), 6.68-6.87 (m, 3 H), 7.15-7.24 (m, 2 H), 7.43-7.52 (m, 1 H), 8.49-8.62 (m, 1 H), 13.11-13.28 (m, 1 H).

10

**Example 3204**

**2-(3,4-Difluoro-phenyl)-*N*-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-acetamide hydrochloride**

15

**Step A: Synthesis of 2-(3,4-difluoro-phenyl)-*N*-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-acetamide hydrochloride.**

Using the procedure for the step A of example 3198, the title compound was obtained.

20        ESI MS *m/e* 390, M (free) + H<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>) δ 1.46-1.87 (m, 8 H), 3.15 (s, 3 H), 3.18 (s, 3 H), 3.46 (s, 2 H), 3.58-3.75 (m, 1 H), 3.86-4.04 (m, 1 H), 6.36 (d, *J* = 7.4 Hz, 1 H), 7.05-7.13 (m, 1 H), 7.27-7.40 (m, 2 H), 7.84-7.94 (m, 1 H), 8.10-8.19 (m, 1 H), 8.27-8.38 (m, 1 H), 12.14-12.23 (m, 1 H).

25        **Example 3205**

***N*-[*cis*-4-(4-Dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3,5-difluoro-benzamide hydrochloride.**

**Step A: Synthesis of *N*-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3,5-difluoro-benzamide hydrochloride.**

Using the procedure for the step D of example 3129, the title compound was obtained.

- ESI MS *m/e* 376, M (free) + H<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.64-2.02 (m, 8 H), 3.17 (s, 3 H), 3.28 (s, 3 H), 4.01-4.31 (m, 2 H), 5.97 (d, *J* = 7.4 Hz, 1 H), 6.46-6.57 (m, 1 H), 6.87-6.98 (m, 1 H), 7.30-7.40 (m, 2 H), 7.49 (d, *J* = 7.4 Hz, 1 H), 8.77-8.93 (m, 1 H).

**Example 3206**

- 10 **3-Chloro-*N*-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-4-fluoro-benzamide hydrochloride**

**Step A: Synthesis of 3-Chloro-*N*-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-4-fluoro-benzamide hydrochloride.**

- 15 Using the procedure for the step A of example 3198, the title compound was obtained.
- ESI MS *m/e* 392, M (free) + H<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.65-2.00 (m, 8 H), 3.17 (s, 3 H), 3.28 (s, 3 H), 4.03-4.30 (m, 2 H), 5.97 (d, *J* = 7.5 Hz, 1 H), 6.43-6.53 (m, 1 H), 7.19 (t, *J* = 8.5 Hz, 1 H), 7.43-7.54 (m, 1 H), 7.65-7.75 (m, 1 H), 7.90-7.97 (m, 1 H), 8.76-8.94 (m, 1 H), 12.95-13.14 (m, 1 H).

20

**Example 3207**

**4-Chloro-*N*-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3-fluoro-benzamide hydrochloride**

- 25 **Step A: Synthesis of 4-Chloro-*N*-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3-fluoro-benzamide hydrochloride.**

Using the procedure for the step A of example 3198, the title compound was obtained.

ESI MS *m/e* 392, M (free) + H<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>) δ 1.56-1.98 (m, 8 H), 3.05-3.27 (m,

6 H), 3.76-4.10 (m, 2 H), 6.37 (d,  $J = 7.6$  Hz, 1 H), 7.65-7.80 (m, 2 H), 7.84-7.97 (m, 2 H), 8.21-8.34 (m, 1 H), 8.39-8.56 (m, 1 H), 12.09-12.27 (m, 1 H).

5 **Example 3208**

**Pyridine-2-carboxylic acid [*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-amide hydrochloride**

**Step A: Synthesis of pyridine-2-carboxylic acid [*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-amide hydrochloride.**

Using the procedure for the step A of example 3198, the title compound was obtained.

ESI MS  $m/e$  341, M (free) +  $H^+$ ;  $^1H$  NMR (300 MHz,  $CDCl_3$ )  $\delta$  1.72-2.07 (m, 8 H), 3.17 (s, 3 H), 3.27 (s, 3 H), 4.02-4.22 (m, 2 H), 5.97 (d,  $J = 7.4$  Hz, 1 H), 7.36-7.55 (m, 2 H), 7.76-7.88 (m, 1 H), 8.10-8.29 (m, 2 H), 8.52-8.70 (m, 2 H).

15

**Example 3209**

***N*-[*cis*-4-(4-Dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-nicotinamide dihydrochloride**

**20 Step A: Synthesis of *N*-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-nicotinamide dihydrochloride.**

Using the procedure for the step A of example 3198, the title compound was obtained.

ESI MS  $m/e$  341, M (free) +  $H^+$ ;  $^1H$  NMR (300 MHz,  $DMSO-d_6$ )  $\delta$  1.62-2.03 (m, 8 H), 3.15 (s, 3 H), 3.20 (s, 3 H), 3.83-4.08 (m, 2 H), 6.37 (d,  $J = 7.4$  Hz, 1 H), 7.81-7.98 (m, 2 H), 8.34-8.48 (m, 1 H), 25 8.58-8.66 (m, 1 H), 8.76-8.93 (m, 2 H), 9.17-9.23 (m, 1 H), 12.30-12.48 (m, 1 H).

**Example 3210**



***N*-[*cis*-4-(4-Dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-isonicotinamide dihydrochloride**

Step A: Synthesis of *N*-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-

**5 isonicotinamide dihydrochloride.**

Using the procedure for the step A of example 3198, the title compound was obtained.

ESI MS *m/e* 341, M (free) + H<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>) δ 1.67-1.99 (m, 8 H), 3.16 (s, 3 H), 3.20 (s, 3 H), 3.84-4.07 (m, 2 H), 6.37 (d, *J* = 7.4 Hz, 1 H), 7.86-8.02 (m, 1 H), 8.25 (d, *J* = 6.5 Hz, 2 H), 8.48-8.57 (m, 1 H), 8.95-9.13 (m, 3 H), 12.53-12.69 (m, 1 H).

10

**Example 3211**

**5-Bromo-*N*-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-nicotinamide hydrochloride**

15

Step A: Synthesis of 5-Bromo-*N*-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-nicotinamide hydrochloride.

Using the procedure for the step A of example 3198, the title compound was obtained.

ESI MS *m/e* 419, M (free) + H<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.64-2.07 (m, 8 H), 3.18 (s, 3 H), 3.28 (s, 3 H), 4.04-4.31 (m, 2 H), 5.95-6.04 (m, 1 H), 7.37-7.65 (m, 2 H), 8.42 (brs, 1 H), 8.63-8.74 (m, 1 H), 8.79 (brs, 1 H), 9.12 (brs, 1 H), 12.72-12.97 (m, 1 H).

20

**Example 3212**

**25 *N*-[*cis*-4-(4-Dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-6-trifluoromethyl-nicotinamide hydrochloride**

Step A: Synthesis of *N*-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-6-

**trifluoromethyl-nicotinamide hydrochloride.**

Using the procedure for the step A of example 3198, the title compound was obtained.

- ESI MS  $m/e$  409,  $M$  (free) +  $H^+$ ;  $^1H$  NMR (300 MHz,  $CDCl_3$ )  $\delta$  1.63-2.06 (m, 8 H), 3.18 (s, 3 H), 3.27 (s, 3 H), 4.07-4.34 (m, 2 H), 5.98 (d,  $J = 7.4$  Hz, 1 H), 7.47-7.62 (m, 2 H), 7.72 (d,  $J = 8.0$  Hz, 1 H), 8.35-8.45 (m, 1 H), 8.57-8.74 (m, 1 H), 9.24-9.31 (m, 1 H).

**Example 3213****4-Chloro-pyridine-2-carboxylic acid [*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-amide hydrochloride****Step A: Synthesis of 4-chloro-pyridine-2-carboxylic acid [*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-amide hydrochloride.**

Using the procedure for the step A of example 3198, the title compound was obtained.

- ESI MS  $m/e$  375,  $M$  (free) +  $H^+$ ;  $^1H$  NMR (300 MHz,  $CDCl_3$ )  $\delta$  1.71-2.09 (m, 8 H), 3.18 (s, 3 H), 3.28 (s, 3 H), 4.01-4.24 (m, 2 H), 5.88-6.08 (m, 1 H), 7.39-7.59 (m, 2 H), 8.05-8.35 (m, 2 H), 8.43-8.72 (m, 2 H), 13.20-13.45 (m, 1 H).

**Example 3214*****N*-[*cis*-4-(4-Dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-4-fluoro-benzamide hydrochloride****Step A: Synthesis of *N*-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-****4-fluoro-benzamide hydrochloride.**

Using the procedure for the step D of example 3129, the title compound was obtained.

- ESI MS  $m/e$  380,  $M$  (free) +  $Na^+$ ;  $^1H$  NMR (300 MHz,  $CDCl_3$ )  $\delta$  1.63-2.24 (m, 8 H), 3.17 (s, 3 H), 3.27 (s, 3 H), 4.01-4.32 (m, 2 H), 5.97 (d,  $J = 7.3$  Hz, 1 H), 6.38-6.57 (m, 1 H), 7.01-7.17 (m, 2 H),

7.41-7.54 (m, 1 H), 7.77-7.91 (m, 2 H), 8.76-8.84 (m, 1 H), 12.86-13.14 (m, 1 H).

#### Example 3215

- 5 **3-Chloro-*N*-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-5-fluoro-benzamide hydrochloride**

**Step A: Synthesis of 3-Chloro-*N*-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-5-fluoro-benzamide hydrochloride.**

- 10 Using the procedure for the step A of example 3198, the title compound was obtained.

ESI MS *m/e* 414, M (free) + Na<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.64-2.03 (m, 8 H), 3.17 (s, 3 H), 3.28 (s, 3 H), 4.02-4.31 (m, 2 H), 5.97 (d, *J* = 7.4 Hz, 1 H), 6.53-6.67 (m, 1 H), 7.16-7.23 (m, 1 H), 7.41-7.51 (m, 2 H), 7.58-7.64 (m, 1 H), 8.76-8.91 (m, 1 H).

15

#### Example 3216

***N*-[*cis*-4-(4-Dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3,4,5-trifluoro-benzamide hydrochloride**

20

**Step A: Synthesis of *N*-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3,4,5-trifluoro-benzamide hydrochloride.**

Using the procedure for the step A of example 3198, the title compound was obtained.

- 25 ESI MS *m/e* 416, M (free) + Na<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.66-2.03 (m, 8 H), 3.18 (s, 3 H), 3.28 (s, 3 H), 4.01-4.34 (m, 2 H), 5.98 (d, *J* = 7.4 Hz, 1 H), 6.70-6.79 (m, 1 H), 7.42-7.63 (m, 3 H), 8.73-8.86 (m, 1 H).

**Example 3217**

**3,5-Di-tert-butyl-N-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-4-hydroxy-benzamide hydrochloride**

5

**Step A: Synthesis of 3,5-di-tert-butyl-N-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-4-hydroxy-benzamide hydrochloride.**

Using the procedure for the step A of example 3198, the title compound was obtained.

- 10 ESI MS *m/e* 490, *M* (free) + Na<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.47 (s, 18 H), 1.63-2.13 (m, 8 H), 3.17 (s, 3 H), 3.28 (s, 3 H), 4.05-4.27 (m, 2 H), 5.52 (s, 1 H), 5.90-6.02 (m, 1 H), 6.57-6.73 (m, 1 H), 7.41-7.55 (m, 1 H), 7.63 (s, 2 H), 8.60-8.77 (m, 1 H), 13.00-13.24 (m, 1 H).

**Example 3218**

**1-(2,3-Dichloro-phenyl)-3-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-urea hydrochloride**

- 15 **Step A: Synthesis of 1-(2,3-dichloro-phenyl)-3-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-urea hydrochloride.**

- 20 To a solution of *N*<sup>2</sup>-(*cis*-4-amino-cyclohexyl)-*N*<sup>4</sup>,*N*<sup>4</sup>-dimethyl-pyrimidine-2,4-diamine in step C of example 3129 (300 mg) in DMSO (3 mL) was added 1,2-dichloro-3-isocyanato-benzene (264 mg). The mixture was stirred at ambient temperature for 12 hr and poured into water. The precipitate was filtrated, washed with water, and purified by medium-pressure liquid chromatography (NH-silica gel, 25% to 50% EtOAc in hexane). To a solution of the above material in EtOAc (2 mL) was added 4 M hydrogen chloride in EtOAc (10 mL). The mixture was stirred at ambient temperature for 1 hr and concentrated under reduced pressure. A suspension of the residue in Et<sub>2</sub>O (20 mL) was stirred at ambient temperature for 1 hr. The

precipitate was collected by filtration, washed with Et<sub>2</sub>O, and dried under reduced pressure to give 1-(2,3-dichloro-phenyl)-3-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-urea hydrochloride (421 mg) as a white solid.

- ESI MS *m/e* 445, *M* (free) + Na<sup>+</sup>; <sup>1</sup>H NMR (200 MHz, CDCl<sub>3</sub>) δ 1.63-2.19 (m, 8 H), 3.15 (s, 3 H), 3.25 (s, 3 H), 3.80-4.22 (m, 2 H), 5.94 (d, *J* = 7.4 Hz, 1 H), 7.00-7.19 (m, 2 H), 7.43-7.64 (m, 2 H), 8.16 (dd, *J* = 8.3, 1.7 Hz, 1 H), 8.37-8.52 (m, 1 H), 12.70-13.00 (m, 1 H).

#### Example 3219

- 10 *N*-[*cis*-4-(4-Dimethylamino-pyrimidin-2-ylamino)-cyclohexylmethyl]-3,4-difluoro-benzamide hydrochloride

#### Step A: Synthesis of *N*-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexylmethyl]-3,4-difluoro-benzamide hydrochloride.

- 15 To a solution of *N*<sup>2</sup>-(*cis*-4-aminomethyl-cyclohexyl)-*N*<sup>4</sup>,*N*<sup>4</sup>-dimethyl-pyrimidine-2,4-diamine in step B of example 3145 (300 mg) in CHCl<sub>3</sub> (3 mL) were added iPr<sub>2</sub>NEt (0.59 mL) and 3,4-difluoro-benzoyl chloride (233 mg). The mixture was stirred at ambient temperature for 17 hr. The reaction was quenched with saturated aqueous NaHCO<sub>3</sub> and the aqueous layer was extracted with CHCl<sub>3</sub> (three times). The combined organic layer was dried over MgSO<sub>4</sub>, filtered, concentrated under  
20 reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, 33% EtOAc in hexane). To a solution of the above material in EtOAc (2 mL) was added 4 M hydrogen chloride in EtOAc (10 mL). The mixture was stirred at ambient temperature for 1 hr and concentrated under reduced pressure. A suspension of the residue in Et<sub>2</sub>O (20 mL) was stirred at ambient  
25 temperature for 1 hr. The precipitate was collected by filtration, washed with Et<sub>2</sub>O, and dried under reduced pressure to give *N*-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexylmethyl]-3,4-difluoro-benzamide hydrochloride (155 mg) as a white solid.
- ESI MS *m/e* 412, *M* (free) + Na<sup>+</sup>; <sup>1</sup>H NMR (200 MHz, CDCl<sub>3</sub>) δ 1.26-2.03 (m, 9 H), 3.16 (s, 3 H), 3.26 (s, 3 H), 3.37-3.61 (m, 2 H), 4.18-4.35 (m, 1 H), 5.94 (d, *J* = 7.4 Hz, 1 H), 6.82-7.33 (m, 2 H),

7.46 (d,  $J = 7.4$  Hz, 1 H), 7.74-8.07 (m, 2 H), 8.83-9.12 (m, 1 H).

#### Example 3220

- 5 *N*-[*cis*-4-(4-Dimethylamino-pyrimidin-2-ylamino)-cyclohexylmethyl]-2-(2,3,6-trichloro-phenyl)-acetamide hydrochloride

Step A: Synthesis of *N*-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexylmethyl]-2-(2,3,6-trichloro-phenyl)-acetamide hydrochloride.

- 10 Using the procedure for the step C of example 3118, the title compound was obtained.

ESI MS  $m/e$  492, M (free) +  $\text{Na}^+$ ;  $^1\text{H}$  NMR (300 MHz,  $\text{CDCl}_3$ )  $\delta$  1.57-1.98 (m, 9 H), 3.16 (s, 3 H), 3.21-3.33 (m, 4 H), 4.16 (s, 2 H), 4.20-4.34 (m, 1 H), 5.95-5.99 (m, 1 H), 6.51-6.64 (m, 1 H), 7.23-7.51 (m, 3 H), 8.75-8.83 (m, 1 H), 12.80-12.95 (m, 1 H).

15

#### Example 3221

9*H*-Xanthene-9-carboxylic acid [*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexylmethyl]-amide hydrochloride

20

Step A: Synthesis of 9*H*-xanthene-9-carboxylic acid [*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexylmethyl]-amide hydrochloride.

Using the procedure for the step C of example 3118, the title compound was obtained.

- 25 ESI MS  $m/e$  480, M (free) +  $\text{Na}^+$ ;  $^1\text{H}$  NMR (300 MHz,  $\text{CDCl}_3$ )  $\delta$  1.27-1.94 (m, 9 H), 3.05-3.19 (m, 5 H), 3.24 (s, 3 H), 4.14-4.28 (m, 1 H), 5.10 (s, 1 H), 5.91 (d,  $J = 7.4$  Hz, 1 H), 6.19-6.33 (m, 1 H), 6.98-7.18 (m, 3 H), 7.20-7.31 (m, 2 H), 7.37-7.54 (m, 3 H), 8.62-8.82 (m, 1 H) 12.88-13.08 (m, 1 H).

## Example 3222

1-(2,3-Dichloro-phenyl)-3-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexylmethyl]-urea hydrochloride

5

Step A: Synthesis of 1-(2,3-dichloro-phenyl)-3-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexylmethyl]-urea hydrochloride.

- To a solution of *N*<sup>2</sup>-(*cis*-4-aminomethyl-cyclohexyl)-*N*<sup>4</sup>,*N*<sup>4</sup>-dimethyl-pyrimidine-2,4-diamine in step B of example 3145 (300 mg) in DMSO (3 mL) was added
- 10 1,2-dichloro-3-isocyanato-benzene (249 mg). The mixture was stirred at ambient temperature for 15 hr and poured into water (20 mL). The precipitate was filtrated, washed with water, and purified by medium-pressure liquid chromatography (NH-silica gel, 25% to 50% EtOAc in hexane). To a solution of the above material in EtOAc (2 mL) was added 4 M hydrogen chloride in EtOAc (10 mL). The mixture was stirred at ambient temperature for 1 hr and concentrated under reduced pressure.
- 15 A suspension of the residue in Et<sub>2</sub>O (20 mL) was stirred at ambient temperature for 1 hr. The precipitate was collected by filtration, washed with Et<sub>2</sub>O, and dried under reduced pressure to 1-(2,3-dichloro-phenyl)-3-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexylmethyl]-urea hydrochloride (260 mg) as a white solid.
- ESI MS *m/e* 437, *M*<sup>+</sup>; <sup>1</sup>H NMR (200 MHz, CDCl<sub>3</sub>) δ 1.35-2.10 (m, 9 H), 3.16 (s, 3 H), 3.26 (s, 3 H), 20 3.32-3.47 (m, 2 H), 4.27-4.47 (m, 1 H), 5.96 (d, *J* = 7.5 Hz, 1 H), 6.80-7.20 (m, 3 H), 7.47 (d, *J* = 7.5 Hz, 1 H), 8.08-8.37 (m, 2 H), 8.63-8.93 (m, 1 H).

## Example 3223

- 25 3,4-Difluoro-*N*-[*cis*-4-(4-methylamino-pyrimidin-2-ylamino)-cyclohexyl]-benzamide-hydrochloride

Step A: Synthesis of (2-chloro-pyrimidin-4-yl)-methyl-amine.

To a solution of 2,4-dichloro-pyrimidine (15.0 g) in THF (150 mL) was added 40% aqueous MeNH<sub>2</sub> (19.5 g). The mixture was stirred at ambient temperature for 1.5 hr. The solution was poured into saturated aqueous NaHCO<sub>3</sub> and the aqueous layer was extracted with CHCl<sub>3</sub> (three times). The combined organic layer was dried over MgSO<sub>4</sub>, filtrated, concentrated, and purified by flash

- 5 chromatography (NH-silica, 20% EtOAc in hexane) to give (2-chloro-pyrimidin-4-yl)-methyl-amine (10.0 g) as a white solid and (4-chloro-pyrimidin-2-yl)-methyl-amine (0.87 g, 6%) as a white solid. (2-chloro-pyrimidin-4-yl)-methyl-amine;

ESI MS *m/e* 143, M<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 3.01 (d, *J* = 5.0 Hz, 3 H), 5.58-5.96 (m, 1 H), 6.55 (d, *J* = 5.1 Hz, 1 H), 8.09-8.23 (m, 1 H).

- 10 (4-chloro-pyrimidin-2-yl)-methyl-amine;

ESI MS *m/e* 143, M<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 2.98 (d, *J* = 5.0 Hz, 3 H), 6.27 (d, *J* = 6.1 Hz, 1 H), 7.93-8.20 (m, 1 H).

#### Step B: Synthesis of [*cis*-4-(4-methylamino-pyrimidin-2-ylamino)-cyclohexyl]-

- 15 carbamic acid tert-butyl ester.

A mixture of (2-chloro-pyrimidin-4-yl)-methyl-amine (2.50 g) and (*cis*-4-amino-cyclohexyl)-carbamic acid *tert*-butyl ester obtained in step B of example 1 (4.10 g) in BuOH (2.50 mL) was stirred at reflux for 24 hr. The reaction mixture was poured into saturated aqueous NaHCO<sub>3</sub>, and the aqueous layer was extracted with CHCl<sub>3</sub> (three times). The combined organic layer was dried 20 over MgSO<sub>4</sub>, filtrated, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica, 25% to 66% EtOAc in hexane) to give [*cis*-4-(4-methylamino-pyrimidin-2-ylamino)-cyclohexyl]-carbamic acid tert-butyl ester (2.63 g) as a white solid.

ESI MS *m/e* 344, M + Na<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.36-1.88 (m, 17 H), 2.89 (d, *J* = 5.1 Hz, 3 H), 3.53-3.69 (m, 1 H), 3.84-4.04 (m, 1 H), 4.44-4.70 (m, 2 H), 4.76-4.86 (m, 1 H), 5.69-5.72 (m, 25 = 1 H), 7.80-7.91 (m, 1 H).

#### Step C: Synthesis of N<sup>2</sup>-(*cis*-4-amino-cyclohexyl)-N<sup>1</sup>-methyl-pyrimidine-2,4-diamine.

A solution of [*cis*-4-(4-methylamino-pyrimidin-2-ylamino)-cyclohexyl]-carbamic acid



tert-butyl ester (4.76 g) in EtOAc (48 mL) was cooled on an ice-bath and 4 M hydrogen chloride in EtOAc (24 mL) was added. The mixture was stirred at ambient temperature for 4 hr and concentrated under reduced pressure. The residue was dissolved in 1 M aqueous NaOH and the aqueous layer was extracted with  $\text{CHCl}_3$  (five times). The combined organic layer was dried over  $\text{MgSO}_4$ , filtered,

- 5 concentrated under reduced pressure, and dried under reduced pressure to give  $N^2$ -(*cis*-4-amino-cyclohexyl)- $N^4$ -methyl-pyrimidine-2,4-diamine (3.00 g, 80%) as a white solid.

ESI MS  $m/e$  222,  $M + H^+$ ;  $^1\text{H NMR}$  (300 MHz,  $\text{CDCl}_3$ )  $\delta$  0.95-1.92 (m, 10 H), 2.78-2.99 (m, 4 H), 3.92-4.08 (m, 1 H), 4.56-4.75 (m, 1 H), 4.84-4.97 (m, 1 H), 5.68 (d,  $J = 5.9$  Hz, 1 H), 7.85 (d,  $J = 5.7$  Hz, 1 H).

10

**Step D: Synthesis of 3,4-difluoro-*N*-[*cis*-4-(4-methylamino-pyrimidin-2-ylamino)-cyclohexyl]-benzamide hydrochloride.**

To a solution of 3,4-difluoro-benzoic acid (196 mg) and  $N^2$ -(*cis*-4-amino-cyclohexyl)- $N^4$ -methyl-pyrimidine-2,4-diamine (250 mg) in DMF (4 mL) were added  $\text{Et}_3\text{N}$  (0.38 mL), HOBt- $\text{H}_2\text{O}$  (259 mg), and EDC-HCl (238 mg). The reaction mixture was stirred at ambient temperature for 12 hr. To the mixture was added water (20 mL) and the aqueous layer was extracted with  $\text{CHCl}_3$  (three times). The combined organic layer was dried over  $\text{MgSO}_4$ , filtered, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, 33% to 75% EtOAc in hexane). To a solution of the above material in EtOAc (10 mL) was added 4 M hydrogen chloride

- 20 in EtOAc (0.2 mL). The mixture was stirred at ambient temperature for 1 hr. The precipitate was collected by filtration, washed with EtOAc, and dried under reduced pressure to give 3,4-difluoro-*N*-[*cis*-4-(4-methylamino-pyrimidin-2-ylamino)-cyclohexyl]-benzamide hydrochloride (317 mg) as a white solid.

ESI MS  $m/e$  362,  $M$  (free) +  $H^+$ ;  $^1\text{H NMR}$  (300 MHz,  $\text{DMSO}-d_6$ )  $\delta$  1.59-1.90 (m, 8 H), 2.89 (d,  $J =$  4.6 Hz, 3 H), 3.80-4.11 (m, 2 H), 6.03-6.13 (m, 1 H), 7.47-8.03 (m, 4 H), 8.27-8.49 (m, 2 H), 8.82-9.06 (m, 1 H), 11.92-12.11 (m, 1 H).

25

**Example 3224**

**3-Chloro-4-fluoro-*N*-[*cis*-4-(4-methylamino-pyrimidin-2-ylamino)-cyclohexyl]-benzamide hydrochloride**

- 5 **Step A: Synthesis of 3-chloro-4-fluoro-*N*-[*cis*-4-(4-methylamino-pyrimidin-2-ylamino)-cyclohexyl]-benzamide hydrochloride.**

Using the procedure for the step C of example 3223, the title compound was obtained.

ESI MS *m/e* 378, *M* (free) +  $H^+$ ;  $^1H$  NMR (300 MHz, DMSO- $d_6$ )  $\delta$  1.59-1.90 (m, 8 H), 2.89 (d,  $J =$  4.6 Hz, 3 H), 3.77-4.10 (m, 2 H), 6.00-6.12 (m, 1 H), 7.49-7.60 (m, 1 H), 7.67-7.76 (m, 1 H), 7.85-7.94 (m, 1 H), 8.11 (dd,  $J = 7.1, 2.2$  Hz, 1 H), 8.24-8.51 (m, 2 H), 8.82-8.94 (m, 1 H), 11.80-11.98 (m, 1 H).

15 **Example 3225**

***N*-[*cis*-4-(4-Ethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide hydrochloride**

**Step A: Synthesis of (2-chloro-pyrimidin-4-yl)-ethyl-amine.**

- 20 To the solution of 2,4-dichloro-pyrimidine (5.00 g) in THF (50 mL) was added 70% aqueous EtNH<sub>2</sub> (5.40 g). The mixture was stirred at ambient temperature for 1 hr. To the residue was added saturated aqueous NaHCO<sub>3</sub> and the aqueous layer was extracted with CHCl<sub>3</sub> (two times). The combined organic layer was dried over MgSO<sub>4</sub>, filtered, concentrated under reduced pressure, and purified flash chromatography (silica gel, 17% to 50% EtOAc in hexane) to give
- 25 (2-chloro-pyrimidin-4-yl)-ethyl-amine (3.69 g) as a white solid and (4-chloro-pyrimidin-2-yl)-ethyl-amine (1.28 g) as a white solid.
- (2-chloro-pyrimidin-4-yl)-ethyl-amine;

ESI MS *m/e* 157,  $M^+$ ;  $^1H$  NMR (500 MHz, CDCl<sub>3</sub>)  $\delta$  1.26 (t,  $J = 7.3$  Hz, 3 H), 3.16-3.62 (m, 2 H),

4.80-5.95 (m, 1 H), 6.23 (d,  $J = 5.8$  Hz, 1 H), 8.02-8.22 (m, 1 H).

(4-chloro-pyrimidin-2-yl)-ethyl-amine;

CI MS  $m/e$  158,  $M + H^+$ ;  $^1H$  NMR (500 MHz,  $CDCl_3$ )  $\delta$  1.23 (t,  $J = 7.5$  Hz, 3 H), 3.42-3.49 (m, 2 H),

5.30-5.62 (m, 1 H), 6.54 (d,  $J = 5.2$  Hz, 1 H), 8.02-8.22 (m, 1 H).

5

**Step B: Synthesis of *N*-[*cis*-4-(4-ethylamino-pyrimidin-2-ylamino)-cyclohexyl]-**

**3,4-difluoro-benzamide hydrochloride.**

To a solution of *N*-(*cis*-4-amino-cyclohexyl)-3,4-difluoro-benzamide obtained in step D of example 3031 (300 mg) in BuOH (1 mL) was added (2-chloro-pyrimidin-4-yl)-

10 ethyl-amine (532 mg). The mixture was heated in a microwave synthesizer at 200°C for 30 min. To

the mixture was added saturated aqueous  $NaHCO_3$  and the aqueous layer was extracted with  $CHCl_3$

(three times). The combined organic layer was dried over  $MgSO_4$ , filtrated, concentrated under

reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, 20% to 50% in EtOAc in nexane). To a solution of the above material in EtOAc (10.0 mL) was added 4 M

15 hydrogen chloride in EtOAc (5.00 mL). The mixture was stirred at ambient temperature for 1 hr and

concentrated under reduced pressure. A suspension of the above material in  $Et_2O$  (20 mL) was stirred

at ambient temperature for 4 hr. The precipitate was collected by filtration, washed with  $Et_2O$ , and

dried under reduced pressure to give *N*-[*cis*-4-(4-ethylamino-pyrimidin-2-ylamino)-cyclohexyl]-

3,4-difluoro-benzamide hydrochloride (398 mg) as a white solid.

20 ESI MS  $m/e$  398,  $M$  (free) +  $Na^+$ ;  $^1H$  NMR (500 MHz,  $CDCl_3$ )  $\delta$  1.19-1.42 (m, 3 H), 1.61-2.05 (m,

8 H), 3.46-3.65 (m, 2 H), 4.00-4.34 (m, 2 H), 5.85-6.00 (m, 1 H), 6.42-6.72 (m, 2 H), 7.11-7.37 (m,

2 H), 7.52-7.82 (m, 2 H), 8.68-8.90 (m, 1 H).

25 **Example 3226**

*N*-{*cis*-4-[4-(Ethyl-methyl-amino)-pyrimidin-2-ylamino]-cyclohexyl}-3,4-difluoro-benzamide hydrochloride

**Step A: Synthesis of (2-chloro-pyrimidin-4-yl)-ethyl-methyl-amine.**

To the solution of 2,4-dichloro-pyrimidine (5.00 g) in THF (50 mL) was added ethyl-methyl-amine (2.08 g). The mixture was stirred at ambient temperature for 1 hr. To the residue was added saturated aqueous NaHCO<sub>3</sub> and the aqueous layer was extracted with CHCl<sub>3</sub> (two times).

- 5 The combined organic layer was dried over MgSO<sub>4</sub>, filtered, concentrated under reduced pressure, and purified flash chromatography (silica gel, 17% to 50% EtOAc in hexane) to give (2-chloro-pyrimidin-4-yl)-ethyl-methyl-amine (4.49 g) as a white solid and (4-chloro-pyrimidin-2-yl)-ethyl-methyl-amine (0.91 g) as a colorless oil.
- (2-chloro-pyrimidin-4-yl)-ethyl-methyl-amine;
- 10 CI MS m/e 172, M (free) + H<sup>+</sup>; <sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>) δ 1.18 (t, J = 3.0 Hz, 3 H), 3.06 (brs, 3 H), 3.35-3.70 (m, 2 H), 6.29 (d, J = 4.8 Hz, 1 H), 7.99 (d, J = 6.1 Hz, 1 H).
- (4-chloro-pyrimidin-2-yl)-ethyl-methyl-amine;
- CI MS m/e 172, M + H<sup>+</sup>; <sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>) δ 1.17 (t, J = 3.0 Hz, 3 H), 3.10 (s, 3 H), 3.66 (q, J = 7.0 Hz, 2 H), 6.45 (d, J = 5.0 Hz, 1 H), 8.14 (d, J = 5.0 Hz, 1 H).

15

**Step B: Synthesis of *N*-(*cis*-4-[4-(ethyl-methyl-amino)-pyrimidin-2-ylamino]-cyclohexyl)-3,4-difluoro-benzamide hydrochloride.**

Using the procedure for the step B of example 3225, the title compound was

20 obtained.

ESI MS m/e 412, M (free) + Na<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.18-1.33 (m, 3 H), 1.64-2.03 (m, 8 H), 3.13-3.32 (m, 3 H), 3.44-3.56 (m, 1 H), 3.67-3.82 (m, 1 H), 4.04-4.31 (m, 2 H), 5.90-6.00 (m, 1 H), 6.59-6.72 (m, 1 H), 7.14-7.27 (m, 1 H), 7.43-7.62 (m, 2 H), 7.68-7.79 (m, 1 H), 8.71-8.83 (m, 1 H).

25

**Example 3227.**

**3,4-Difluoro-*N*-(*cis*-4-{4-[(2-hydroxy-ethyl)-methyl-amino]-pyrimidin-2-ylamino}-**

**cyclohexyl)-benzamide hydrochloride****Step A: Synthesis of [(2-chloro-pyrimidin-4-yl)-methyl-amino]-ethanol**

To the solution of 2,4-dichloro-pyrimidine (5.00 g) in THF (50 mL) was added

- 5 2-methylamino-ethanol (2.65 g). The mixture was stirred at ambient temperature for 1hr. To the residue was added saturated aqueous  $\text{NaHCO}_3$  and the aqueous layer was extracted with  $\text{CHCl}_3$  (two times). The combined organic layer was dried over  $\text{MgSO}_4$ , filtered, concentrated under reduced pressure, and purified flash chromatography (silica gel, 17% to 50% EtOAc in hexane) to give [(2-chloro-pyrimidin-4-yl)-methyl-amino]-ethanol (3.50 g) as a white solid and [(4-chloro-pyrimidin-2-yl)-methyl-amino]-ethanol (827 mg) as a white solid.
- [(2-chloro-pyrimidin-4-yl)-methyl-amino]-ethanol;  
ESI MS  $m/e$  188,  $M$  (free) +  $\text{H}^+$ ;  $^1\text{H NMR}$  (500 MHz,  $\text{CDCl}_3$ )  $\delta$  2.91 (brs, 3 H), 3.13 (s, 3 H), 3.64-3.92 (m, 4 H), 6.46-6.49 (m, 1 H), 7.99 (d,  $J = 6.1$  Hz, 1 H).
- [(4-chloro-pyrimidin-2-yl)-methyl-amino]-ethanol  
15 ESI MS  $m/e$  210,  $M + \text{Na}^+$ ;  $^1\text{H NMR}$  (500 MHz,  $\text{CDCl}_3$ )  $\delta$  3.23 (s, 3 H), 3.76-3.92 (m, 4 H), 6.52 (d,  $J = 5.2$  Hz, 1 H), 8.12 (d,  $J = 4.6$  Hz, 1 H).

**Step B: Synthesis of 3,4-difluoro-N-(cis-4-{4-[(2-hydroxy-ethyl)-methyl-amino]-pyrimidin-2-ylamino}-cyclohexyl)-benzamide hydrochloride.**

- 20 Using the procedure for the step B of example 3225, the title compound was obtained.

ESI MS  $m/e$  428,  $M$  (free) +  $\text{Na}^+$ ;  $^1\text{H NMR}$  (300 MHz,  $\text{DMSO}-d_6$ )  $\delta$  1.61-1.98 (m, 8 H), 3.13-3.25 (m, 3 H), 3.54-4.31 (m, 5 H), 4.76-5.02 (m, 1 H), 6.26-6.52 (m, 1 H), 7.48-7.62 (m, 1 H), 7.68-8.17 (m, 4 H), 8.28-8.47 (m, 1 H), 11.74-11.95 (m, 1 H).

25

**Example 3228**

**3-Chloro-N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-4-fluoro-**

**benzamide hydrochloride****Step A: Synthesis of *N*-(*cis*-4-amino-cyclohexyl)-3-chloro-4-fluoro-benzamide.**

To a solution of 3-chloro-4-fluoro-benzoic acid (26.9 g) and (*cis*-4-amino-cyclohexyl)-carbamic acid *tert*-butyl ester (30.0 g) in DMF (300 mL) were added Et<sub>3</sub>N (46.8 mL), HOBT·H<sub>2</sub>O (32.2 g), and EDC·HCl (29.5 g). The reaction mixture was stirred at ambient temperature for 20 hr. To the mixture was added water (1.20 L) and the aqueous layer was extracted with CHCl<sub>3</sub> (three times). The combined organic layer was dried over MgSO<sub>4</sub>, filtered, and concentrated under reduced pressure. A solution of the above material in EtOAc (650 mL) was cooled on an ice-bath and 4 M hydrogen chloride in EtOAc (325 mL) was added. The mixture was stirred at ambient temperature for 16 hr and concentrated under reduced pressure. The residue was dissolved in 1 M aqueous NaOH (300 mL) and the aqueous layer was extracted with CHCl<sub>3</sub> (three time). The combined organic layer was dried over MgSO<sub>4</sub>, filtered, concentrated under reduced pressure, and dried under reduced pressure to give *N*-(*cis*-4-amino-cyclohexyl)-3-chloro-4-fluoro-benzamide (44.4 g) as a brown solid.

ESI MS *m/e* 271, M (free) + H<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.37-1.92 (m, 8 H), 2.94-3.08 (m, 1 H), 4.06-4.22 (m, 1 H), 6.13-6.31 (m, 1 H), 7.19 (t, *J* = 8.5 Hz, 1 H), 7.61-7.70 (m, 1 H), 7.79-7.87 (m, 1 H).

**20 Step B: Synthesis of 3-chloro-*N*-[*cis*-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-4-fluoro-benzamide hydrochloride.**

To a solution of *N*-(*cis*-4-amino-cyclohexyl)-3-chloro-4-fluoro-benzamide (432 mg) in BuOH (1 mL) was added 2-chloro-4-dimethylamino-5-methylpyrimidine obtained in step A of example 3119 (250 mg). The mixture was heated in a microwave synthesizer at 200°C for 10 min. To the mixture was added saturated aqueous NaHCO<sub>3</sub> and the aqueous layer was extracted with CHCl<sub>3</sub> (three times). The combined organic layer was dried over MgSO<sub>4</sub>, filtrated, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, 20% to 50% EtOAc in hexane) to give a pale yellow oil. To a solution of the above material in EtOAc (10 mL) was added

4 M hydrogen chloride in EtOAc (0.2 mL). The mixture was stirred at ambient temperature for 1 hr and concentrated under reduced pressure. A suspension of the above material in Et<sub>2</sub>O (20 mL) was stirred at ambient temperature for 4 hr. The precipitate was collected by filtration, washed with Et<sub>2</sub>O, and dried under reduced pressure to give 3-chloro-*N*-[*cis*-4-(4-dimethylamino-5-methyl-pyrimidin-

- 5 2-ylamino)-cyclohexyl]-4-fluoro-benzamide hydrochloride (174 mg) as a white solid.

ESI MS *m/e* 406, *M* (free) + H<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.61-2.02 (m, 8 H), 2.25 (s, 3 H), 3.30 (s, 6 H), 4.02-4.26 (m, 2 H), 6.81-6.93 (m, 1 H), 7.13-7.27 (m, 2 H), 7.70-7.78 (m, 1 H), 7.93-8.00 (m, 1 H), 8.50-8.63 (m, 1 H), 12.68-12.85 (m, 1 H).

10

#### Example 3229

**3-Chloro-*N*-[*cis*-4-(4-dimethylamino-5-fluoro-pyrimidin-2-ylamino)-cyclohexyl]-4-fluoro-benzamide hydrochloride**

- 15 **Step A: Synthesis of 3-chloro-*N*-[*cis*-4-(4-dimethylamino-5-fluoro-pyrimidin-2-ylamino)-cyclohexyl]-4-fluoro-benzamide hydrochloride.**

Using the procedure for the step B of example 3228, the title compound was obtained.

- ESI MS *m/e* 410, *M* (free) + H<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.64-2.03 (m, 8 H), 3.36 (s, 6 H),  
20 4.00-4.23 (m, 2 H), 6.73-6.84 (m, 1 H), 7.18 (t, *J* = 8.6 Hz, 1 H), 7.45 (d, *J* = 7.6 Hz, 1 H), 7.67-7.76 (m, 1 H), 7.95 (dd, *J* = 7.0, 2.2 Hz, 1 H), 8.64-8.78 (m, 1 H).

#### Example 3230

- 25 **3-Chloro-*N*-[*cis*-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-4-fluoro-benzamide hydrochloride**

**Step A: Synthesis of 3-chloro-*N*-[*cis*-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-**

**cyclohexyl]-4-fluoro-benzamide hydrochloride.**

Using the procedure for the step B of example 3228, the title compound was obtained.

ESI MS  $m/e$  406,  $M$  (free) +  $H^+$ ;  $^1H$  NMR (300 MHz,  $CDCl_3$ )  $\delta$  1.62-2.04 (m, 8 H), 2.36 (s, 3 H), 3.15 (s, 3 H), 3.27 (s, 3 H), 4.01-4.31 (m, 2 H), 5.76 (s, 1 H), 6.73-6.84 (m, 1 H), 7.19 (t,  $J$ = 8.6 Hz, 1 H), 7.68-7.79 (m, 1 H), 7.97 (dd,  $J$ = 6.9, 2.2 Hz, 1 H), 8.50-8.63 (m, 1 H), 12.94-13.16 (m, 1 H).

**Example 3231****10 *N*-[*cis*-4-(4-Dimethylamino-6-ethyl-pyrimidin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide hydrochloride****Step A: Synthesis of (2,6-Dichloro-pyrimidin-4-yl)-dimethyl-amine.**

To the solution of 2,4,6-trichloro-pyrimidine (10.0 g) in THF (50 mL) were added 50% aqueous  $Me_2NH$  (4.92 g) and  $iPr_2NEt$  (8.46 g). The mixture was stirred at ambient temperature for 1.5 hr and concentrated under reduced pressure. To the residue was added saturated aqueous  $NaHCO_3$  and the aqueous layer was extracted with  $CHCl_3$  (three times). The combined organic layer was dried over  $MgSO_4$ , filtered, concentrated under reduced pressure, and purified flash chromatography (NH-silica gel, 3% EtOAc in hexane) to give (2,6-dichloro-pyrimidin-4-yl)-dimethyl-amine (6.03 g) as white solid.

ESI MS  $m/e$  192,  $M^+$ ;  $^1H$  NMR (300 MHz,  $CDCl_3$ )  $\delta$  2.77-3.46 (m, 6 H), 6.34 (s, 1 H).

**Step B: Synthesis of (2-chloro-6-ethyl-pyrimidin-4-yl)-dimethyl-amine.**

A solution of  $ZnBr_2$  (3.87 g) in THF (60 mL) was cooled to  $-60^\circ C$  and 1 M EtMgBr in THF (17.2 mL) was added. The mixture was stirred at  $-60^\circ C$  for 1 hr and warmed to ambient temperature. To the mixture was added (2,6-dichloro-pyrimidin-4-yl)-dimethyl-amine in THF (60 mL) and stirred at reflux for 5 days. To the mixture was added saturated aqueous  $NH_4Cl$  and the aqueous layer was extracted with  $CHCl_3$  (three times). The combined organic layer was dried over  $MgSO_4$ , filtered,



concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (silica gel, 17% to 33% EtOAc in hexane) to give (2-chloro-6-ethyl-pyrimidin-4-yl)-dimethyl-amine (352 mg) as pale yellow solid and (6-chloro-2-ethyl-pyrimidin-4-yl)-dimethyl-amine (622 mg) as pale yellow solid.

5 (2-chloro-6-ethyl-pyrimidin-4-yl)-dimethyl-amine;

ESI MS *m/e* 208, M (free) + Na<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.25 (t, *J* = 7.6 Hz, 3 H), 2.54-2.66 (m, 2 H), 3.11 (s, 6 H), 6.15 (s, 1 H).

(6-chloro-2-ethyl-pyrimidin-4-yl)-dimethyl-amine;

ESI MS *m/e* 186, M + H<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.29 (t, *J* = 7.6 Hz, 3 H), 2.74 (q, *J* = 7.7 Hz, 2 H), 3.10 (s, 6 H), 6.24 (s, 1 H).

**StepC: Synthesis of *N*-[*cis*-4-(4-dimethylamino-6-ethyl-pyrimidin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide hydrochloride**

Using the procedure for the step B of example 3225, the title compound was

15 obtained.

ESI MS *m/e* 426, M (free) + Na<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.29-1.44 (m, 3 H), 1.58-2.19 (m, 8 H), 2.54-2.77 (m, 2 H), 3.15 (s, 3 H), 3.26 (s, 3 H), 3.98-4.34 (m, 2 H), 5.74 (s, 1 H), 6.41-6.63 (m, 1 H), 7.08-7.32 (m, 1 H), 7.46-7.81 (m, 2 H), 8.58-8.81 (m, 1 H), 12.83-13.09 (m, 1 H).

20

**Example 3232**

***N*-[*cis*-4-(4,6-Bis-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide hydrochloride**

25 **Step A: Synthesis of 2-chloro-*N,N,N',N'*-tetramethyl-pyrimidine-4,6-diamine.**

To the solution of (2,6-dichloro-pyrimidin-4-yl)-dimethyl-amine obtained in step A of example 3231 (1.60 g) in THF (2 mL) was added 50% aqueous Me<sub>2</sub>NH (789 mg). The mixture was stirred at reflux for 3.5 hr in a sealed tube. To the residue was added saturated aqueous NaHCO<sub>3</sub> and

the aqueous layer was extracted with  $\text{CHCl}_3$  (three times). The combined organic layer was dried over  $\text{MgSO}_4$ , filtered, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (silica gel, 20% EtOAc in hexane) to give 2-chloro-*N,N,N',N'*-tetramethyl-pyrimidine-4,6-diamine (203 mg) as a pale brown solid and 6-chloro-*N,N,N',N'*-tetramethyl-

5 pyrimidine-2,4-diamine (1.43 g) as a pale yellow solid.

2-chloro-*N,N,N',N'*-tetramethyl-pyrimidine-4,6-diamine;

ESI MS  $m/e$  201,  $M$  (free) +  $\text{H}^+$ ;  $^1\text{H}$  NMR (300 MHz,  $\text{CDCl}_3$ )  $\delta$  3.05 (s, 12 H), 5.15 (s, 1 H).

6-chloro-*N,N,N',N'*-tetramethyl-pyrimidine-2,4-diamine;

ESI MS  $m/e$  201,  $M$  +  $\text{H}^+$ ;  $^1\text{H}$  NMR (300 MHz,  $\text{CDCl}_3$ )  $\delta$  3.04 (s, 6 H), 3.13 (s, 6 H), 5.76 (s, 1 H).

10

**Step B: Synthesis of *N*-[*cis*-4-(4,6-bis-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide hydrochloride.**

Using the procedure for the step B of example 3225, the title compound was obtained.

15 ESI MS  $m/e$  441,  $M$  (free) +  $\text{Na}^+$ ;  $^1\text{H}$  NMR (300 MHz,  $\text{CDCl}_3$ )  $\delta$  1.61-2.09 (m, 8 H), 2.96-3.38 (m, 12 H), 4.00-4.31 (m, 2 H), 4.73 (s, 1 H), 6.65-6.82 (m, 1 H), 7.13-7.25 (m, 1 H), 7.55-7.63 (m, 1 H), 7.68-7.78 (m, 1 H), 8.70-8.82 (m, 1 H), 11.79-11.99 (m, 1 H).

20 **Example 3233**

***N*-[*cis*-4-(6-Chloro-4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-2-phenoxy-nicotinamide hydrochloride**

**Step A: Synthesis of *N*-[*cis*-4-(6-chloro-4-dimethylamino-pyrimidin-2-**

25 **ylamino)-cyclohexyl]-2-phenoxy-nicotinamide hydrochloride.**

Using the procedure for the step B of example 3032, the title compound was obtained.

ESI MS  $m/e$  489,  $M$  (free) +  $\text{Na}^+$ ;  $^1\text{H}$  NMR (300 MHz,  $\text{CDCl}_3$ )  $\delta$  1.52-2.10 (m, 8 H), 2.96-3.38 (m,

6 H), 4.02-4.29 (m, 2 H), 5.82-6.03 (m, 1 H), 7.04-7.55 (m, 6 H), 7.80-8.01 (m, 1 H), 8.15-8.28 (m, 1 H), 8.47-8.61 (m, 1 H).

#### 5 Example 3234

*N*-[*cis*-4-(6-chloro-4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide hydrochloride

Step A: Synthesis of *N*-[*cis*-4-(6-chloro-4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-  
10 3,4-difluoro-benzamide hydrochloride.

Using the procedure for the step B of example 3225, the title compound was  
obtained.

ESI MS *m/e* 432, M (free) + Na<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.63-2.05 (m, 8 H), 3.04-3.37 (m,  
6 H), 4.02-4.37 (m, 2 H), 5.88-6.03 (m, 1 H), 6.56-6.86 (m, 1 H), 7.14-7.27 (m, 1 H), 7.51-7.63 (m,  
15 1 H), 7.66-7.82 (m, 1 H), 8.85-9.02 (m, 1 H).

#### Example 3235

*N*-[*cis*-4-(4-Amino-quinolin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide hydrochloride  
20

Step A: Synthesis of 2-chloro-quinolin-4-ylamine.

To the solution of 2,4-dichloro-quinoline obtained in step A of example 1 (4.00 g) in IPA (40  
mL) was added 28% aqueous NH<sub>3</sub> (40.0 mL). The mixture was stirred at reflux for 10 days in a sealed  
tube. To the residue was added saturated aqueous NaHCO<sub>3</sub> and the aqueous layer was extracted with  
25 CHCl<sub>3</sub> (three times). The combined organic layer was dried over MgSO<sub>4</sub>, filtered, concentrated under  
reduced pressure, and purified by medium-pressure liquid chromatography (silica gel, 9% to 17%  
EtOAc in hexane) to give 2-chloro-quinolin-4-ylamine (1.39 g) as a white solid and 4-chloro-quinolin-  
2-ylamine (1.17 g) as a white solid.

2-chloro-quinolin-4-ylamine;

ESI MS  $m/e$  178,  $M^+$ ;  $^1H$  NMR (200 MHz,  $CDCl_3$ )  $\delta$  4.69-4.97 (m, 2 H), 6.61 (s, 1 H), 7.37-7.78 (m, 3 H), 7.84-8.02 (m, 1 H).

4-chloro-quinolin-2-ylamine

- 5 ESI MS  $m/e$  178,  $M^+$ ;  $^1H$  NMR (300 MHz,  $CDCl_3$ )  $\delta$  4.58-4.96 (m, 2 H), 6.85 (s, 1 H), 7.23-7.41 (m, 1 H), 7.53-7.72 (m, 2 H), 7.98-8.09 (m, 1 H).

**Step B: Synthesis of *N*-[*cis*-4-(4-amino-quinolin-2-ylamino)-cyclohexyl]-3,4-difluorobenzamide hydrochloride.**

- 10 Using the procedure for the step B of example 3225, the title compound was obtained.

ESI MS  $m/e$  397,  $M$  (free) +  $H^+$ ;  $^1H$  NMR (300 MHz,  $CDCl_3$ )  $\delta$  1.29-2.15 (m, 8 H), 3.75-3.90 (m, 1 H), 4.05, 4.26 (m, 1 H), 5.44-5.59 (m, 2 H), 5.89 (s, 1 H), 6.99-7.43 (m, 3 H), 7.55-7.84 (m, 5 H), 8.81-8.98 (m, 1 H).

15

**Example 3236**

**2-(*cis*-4-[[1-(3,4-Difluoro-phenyl)-methanoyl]-amino]-cyclohexylamino)-quinoline-4-carboxylic acid amide**

20

**Step A: Synthesis of 2-chloro-quinoline-4-carboxylic acid amide.**

- To a solution of 2-chloro-quinoline-4-carboxylic acid (3.00 g) in DMF (30 mL) were added 28% aqueous  $NH_3$  (1.05 g),  $Et_3N$  (5.04 mL),  $HOBt \cdot H_2O$  (3.32 g), and EDC-HCl (3.32 g). The reaction mixture was stirred at ambient temperature for 16 hr. To the reaction mixture was added
- 25 water (20 mL) and the aqueous layer extracted with  $CHCl_3$  (three times). The combined organic layer was dried over  $MgSO_4$ , filtered, concentrated under reduced pressure, purified by medium-pressure liquid chromatography (NH-silica gel, 20% to 50% EtOAc in hexane) to give 2-chloro-quinoline-4-carboxylic acid amide (1.77 g) as a white solid.

ESI MS *m/e* 207, *M* (free) +  $H^+$ ;  $^1H$  NMR (300 MHz, DMSO- $d_6$ )  $\delta$  7.65 (s, 1 H), 7.68-7.77 (m, 1 H), 7.83-7.93 (m, 1 H), 7.98-8.09 (m, 2 H), 8.18-8.25 (m, 1 H), 8.30-8.40 (m, 1 H).

**Step B: Synthesis of 2-(*cis*-4-([1-(3,4-difluoro-phenyl)-methanoyl]-amino)-cyclohexylamino)-quinoline-4-carboxylic acid amide.**

- A mixture of 2-chloro-quinoline-4-carboxylic acid amide (300 mg) and *N*-(*cis*-4-amino-cyclohexyl)-3,4-difluoro-benzamide obtained in step A of example 3031 (406 mg) in butanol (1 mL) and DMSO (1 mL) was stirred at reflux for 24 hr. The reaction mixture was poured into saturated aqueous  $NaHCO_3$  and the aqueous layer was extracted with  $CHCl_3$  (three times). The combined organic layer was dried over  $MgSO_4$ , filtered, concentrated under reduced pressure, purified by medium-pressure liquid chromatography (NH-silica gel, EtOAc), and concentrated under reduced pressure. The above material was washed with and dried under reduced pressure to give 2-(*cis*-4-([1-(3,4-difluoro-phenyl)-methanoyl]-amino)-cyclohexylamino)-quinoline-4-carboxylic acid amide (136 mg) as a white solid.
- 15 ESI MS *m/e* 447, *M* (free) +  $Na^+$ ;  $^1H$  NMR (300 MHz, DMSO- $d_6$ )  $\delta$  1.61-2.03 (m, 8 H), 3.78-3.93 (m, 1 H), 4.05-4.20 (m, 1 H), 6.89 (s, 1 H), 6.99-7.07 (m, 1 H), 7.11-7.21 (m, 1 H), 7.42-7.61 (m, 3 H), 7.65-7.82 (m, 3 H), 7.88-7.99 (m, 1 H), 8.02-8.10 (m, 1 H), 8.28-8.36 (m, 1 H).

**20 Example 3237**

**3,4-Difluoro-*N*-[*cis*-4-(4-trifluoromethyl-quinolin-2-yl)-amino-cyclohexyl]-benzamide hydrochloride**

**Step A: Synthesis of 3,4-difluoro-*N*-[*cis*-4-(4-trifluoromethyl-quinolin-2-yl)-amino-cyclohexyl]-benzamide hydrochloride.**

Using the procedure for the step B of example 3225, the title compound was obtained.

ESI MS *m/e* 472, *M* (free) +  $Na^+$ ;  $^1H$  NMR (300 MHz,  $CDCl_3$ )  $\delta$  1.80-2.10 (m, 8 H), 3.99-4.28 (m,

2 H), 6.46-6.63 (m, 1 H), 7.12-7.34 (m, 2 H), 7.48-7.63 (m, 2 H), 7.66-7.90 (m, 3 H), 7.94-8.05 (m, 1 H), 10.14-10.35 (m, 1 H).

### 5 Example 3238

#### 3,4-Difluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide methanesulfonic acid

- Step A: Synthesis of 3,4-difluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide methanesulfonic acid.**
- To a solution of *N*-(*cis*-4-methyl-quinolin-2-yl)-cyclohexane-1,4-diamine obtained in step A of example 3070 (3.00 g) in  $\text{CHCl}_3$  (30 mL) were added  $\text{Et}_3\text{N}$  (3.40 mL) and 3,4-difluoro-benzoyl chloride (2.28 g). The mixture was stirred at ambient temperature for 6 hr. To the mixture was added saturated aqueous  $\text{NaHCO}_3$  and the aqueous layer was extracted with  $\text{CHCl}_3$  (three times). The combined organic layer was dried over  $\text{MgSO}_4$ , filtered, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, 20% to 33% EtOAc in hexane and silica gel, 2% to 5% MeOH in  $\text{CHCl}_3$ ) to give 3,4-difluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide (3.52 g) as colorless solid. To a solution of 3,4-difluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide (700 mg) in EtOH (7 mL) was added MsOH (179 mg). The mixture was stirred at ambient temperature for 3 hr. The precipitate was collected by filtration, washed with EtOH, and dried at 70 °C under reduced pressure to give 3,4-difluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide methanesulfonic acid (769 mg) as a white solid.
- ESI MS  $m/e$  396,  $\text{M}^+$  (free) +  $\text{H}^+$ ;  $^1\text{H}$  NMR (300 MHz,  $\text{DMSO}-d_6$ )  $\delta$  1.69-2.01 (m, 8 H), 2.42 (s, 3 H), 2.62 (brs, 3 H), 3.90-4.21 (m, 2 H), 7.02-7.13 (m, 1 H), 7.47-7.61 (m, 2 H), 7.75-8.04 (m, 5 H), 8.35, (d,  $J = 6.4$  Hz, 1 H), 9.15-9.42 (m, 1 H), 12.27-12.51 (m, 1 H).

**Example 3239****3-Chloro-4-fluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide methanesulfonic acid****5 Step A: Synthesis of 3-chloro-4-fluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide methanesulfonic acid.**

- To a solution of 3-chloro-4-fluoro-benzoic acid (2.26 g) and *N*-(*cis*-4-methyl-quinolin-2-yl)-cyclohexane-1,4-diamine obtained in step A of example 3070 (3.00 g) in DMF (30 mL) were added Et<sub>3</sub>N (3.93 mL), HOBt-H<sub>2</sub>O (2.70 g), and EDC-HCl (2.47 g). The reaction mixture was stirred at ambient temperature for 6 hr. To the reaction mixture was added water (200 mL) and the suspension was stirred at ambient temperature for 30 min. The precipitated was collected by filtration, washed with H<sub>2</sub>O, and purified by medium-pressure liquid chromatography (NH-silica gel, 20% to 33% EtOAc in hexane) to give 3-chloro-4-fluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide (4.40 g) as a colorless solid. To a solution of 3-chloro-4-fluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide (800 mg) in EtOH (8 mL) was added MsOH (196 mg). The mixture was stirred at ambient temperature for 4 hr. The precipitate was collected by filtration, washed with EtOH, and dried at 80 °C under reduced pressure to give 3-chloro-4-fluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide methanesulfonic acid (845 mg) as a white solid.
- 20 ESI MS *m/e* 434, *M* (free) + Na<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>) δ 1.66-1.99 (m, 8 H), 2.38 (s, 3 H), 2.56-2.73 (m, 3 H), 3.87-4.21 (m, 2 H), 6.99-7.14 (m, 1 H) 7.48-7.58 (m, 2 H), 7.74-7.84 (m, 1 H), 7.87-8.05 (m, 3 H), 8.12 (dd, *J* = 7.2, 2.2 Hz, 1 H), 8.36-8.41 (m, 1 H), 9.14-9.39 (m, 1 H), 12.28-12.55 (m, 1 H).

25

**Example 3240****3-Methoxy-*N*-[*cis*-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide methanesulfonic acid**

**Step A: Synthesis of 3-methoxy-*N*-[*cis*-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide  
methanesulfonic acid.**

- To a solution of *cis-N*-quinolin-2-yl-cyclohexane-1,4-diamine obtained in step A of example 3033 (4.00 g) in  $\text{CHCl}_3$  (40 mL) were added  $\text{Et}_3\text{N}$  (4.85 mL) and 3-methoxy-benzoyl chloride (3.10 g). The mixture was stirred at ambient temperature for 6 hr. The reaction was quenched with saturated aqueous  $\text{NaHCO}_3$  and the aqueous layer was extracted with  $\text{CHCl}_3$  (three times). The combined organic layer was dried over  $\text{MgSO}_4$ , filtered, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, 20% EtOAc in hexane) to give 3-methoxy-*N*-[*cis*-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide (5.42 g) as colorless solid. To a solution of 3-methoxy-*N*-[*cis*-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide (700 mg) in EtOH (7 mL) was added MsOH (188 mg). The mixture was stirred at ambient temperature for 24 hr. The precipitate was collected by filtration, washed with EtOH, and dried at 80 °C under reduced pressure to give 3-methoxy-*N*-[*cis*-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide methanesulfonic acid (741 mg) as a white solid.
- ESI MS  $m/e$  398,  $\text{M}^+ + \text{Na}^+$ ;  $^1\text{H}$  NMR (300 MHz,  $\text{DMSO}-d_6$ )  $\delta$  1.70-1.99 (m, 8 H), 2.35 (s, 3 H), 3.81 (s, 3 H) 3.90-4.04 (m, 1 H), 4.08-4.22 (m, 1 H), 7.06-7.26 (m, 2 H), 7.32-7.56 (m, 4 H), 7.73-8.02 (m, 3 H), 8.17-8.38 (m, 2 H), 12.41-12.58 (m, 1 H).



**Example 3241**

*N*-{*cis*-4-[(4-amino-5-methylpyrimidin-2-yl)amino]cyclohexyl}-3,5-bis(trifluoromethyl)benzamide hydrochloride

**5 Step A: Synthesis of 2-chloro-5-methyl-pyrimidin-4-ylamine.**

A solution of 2,4-dichloro-5-methyl-pyrimidine (4.1 g, 0.025 mol) was dissolved in THF (30 mL) and cooled with stirring on an ice bath. To the mixture was added 7 N NH<sub>3</sub> in MeOH (14.4 mL, 0.10 mol) and stirring was continued overnight (in which time the ice melted and the reaction warmed to room temperature). The excess solvent was removed in vacuo and the precipitate was suspended in 10 CH<sub>2</sub>Cl<sub>2</sub> (20 mL). The organic layer was extracted with a NaHCO<sub>3</sub> (aq) solution (20 mL) and both layers of the extraction were filtered to collect the resulting insoluble precipitate. This precipitate was washed with cold H<sub>2</sub>O and dried to yield 2-chloro-5-methyl-pyrimidin-4-ylamine (1.0 g, 0.0070 mol, 27 %) as a white solid.

ESI-MS *m/e* 144.2 M+H<sup>+</sup>; <sup>1</sup>H NMR (400 MHz, DMSO-*d*<sub>6</sub>) δ 7.80 (s, 1H), 7.22 (bs, 2H), 1.93 (s, 3H).

15

**Step B: Synthesis of *N*-{*cis*-4-[(4-amino-5-methylpyrimidin-2-yl)amino]cyclohexyl}-3,5-bis(trifluoromethyl)benzamide hydrochloride.**

To a solution of 2-chloro-5-methyl-pyrimidin-4-ylamine (292 mg, 2.03 mmol) in 2 mL 2-propanol was added DIEA (531 uL, 3.05 mmol) and *cis*-*N*-(4-amino-cyclohexyl)-3,5-bis(trifluoromethyl)-benzamide (720 mg, 2.03 mmol). The mixture was then heated in a microwave at 170 °C for 1 hour. The reaction mixture was cooled and concentrated and the resulting oil was purified by column (0-5 % MeOH in CH<sub>2</sub>Cl<sub>2</sub>). The organic solvents were evaporated and the resulting oil was re-dissolved into 4 mL CH<sub>2</sub>Cl<sub>2</sub> and 2M HCl in Et<sub>2</sub>O (2.0 mL, 4.0 mmol) was added. The reaction was stirred for 30 minutes and the solvent was removed. A precipitate formed that was subsequently 25 filtered and washed with a cold 50% ether in hexanes solution to yield *N*-{*cis*-4-[(4-amino-5-

methylpyrimidin-2-yl)amino]cyclohexyl}-3,5-bis(trifluoromethyl)benzamide hydrochloride (500 mg, 1.00 mmol, 49%) as a HCl salt.

ESI-MS  $m/e$  462.2  $M+H^+$ ;  $^1H$  NMR (400 MHz, DMSO- $d_6$ )  $\delta$  11.86 (s, 1H), 8.79 (s, 1H), 8.51 (s, 1H), 8.39 (s, 1H), 8.31 (s, 1H), 8.01 (s, 1H), 7.85 (s, 1H), 7.66 (s, 1H), 3.90 (bs, 2H), 1.90 (s, 3H), 1.89-1.61 (m, 8H).

#### Example 3242

2-[(*cis*-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)amino]-1-[4-(trifluoromethoxy)phenyl]ethanone trifluoroacetate

**Step A: Synthesis of 2-[(*cis*-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)amino]-1-[4-(trifluoromethoxy)phenyl]ethanone trifluoroacetate.**

- To a solution of *cis*-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-1-cyclohexylamine (37 mg, 0.14 mmol) and 4-trifluoromethoxy bromoacetophenone (42 mg, 0.14 mmol) in THF (2 mL) was added DIEA (20  $\mu$ L). The reaction was stirred for 2 h at 65 °C, concentrated, dissolved in DMSO (1 mL), and purified by prep-HPLC to give 2-[(*cis*-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)amino]-1-[4-(trifluoromethoxy)phenyl]ethanone trifluoroacetate 24 mg (30 %) as a white powder.
- ESI-MS  $m/e$  452 ( $M+H^+$ );  $^1H$  NMR (400 MHz,  $CDCl_3$ )  $\delta$  8.28 (bs, 2 H), 8.09 (d, 2 H,  $J = 8.8$  Hz), 7.29 (m, 2 H), 7.20 (m, 1 H), 4.13 (bs, 1 H), 3.45 (bs, 1 H), 3.33 (s, 6 H), 3.27 (brn, 2 H), 2.28 (s, 3 H), 2.02-1.71 (m, 8 H).

#### 25 Example 3243

*N*-{1-[3,5-Bis(trifluoromethyl)phenyl]-1-methylethyl}-*N'*-(*cis*-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea trifluoroacetate

Step A: Synthesis of *N*-{1-[3,5-bis(trifluoromethyl)phenyl]-1-methylethyl}-*N'*-(*cis*-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea trifluoroacetate.

To a solution of 2-(3,5-bistrifluoromethyl-phenyl)-2-methyl propionic acid (0.4 g, 1.3 mmol) and Et<sub>3</sub>N (0.17 mL, 1.3 mmol) in dry benzene (4 mL) was added diphenylphosphoryl azide (0.36 g, 1.3 mmol). During the reaction being refluxed for about 3 h, 3,5-bistrifluoromethyl-4-(isocyanato-1-methyl-ethyl)-benzene was formed as the reaction intermediate, which was directly used to prepare urea derivatives.

To a solution of *cis*-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-1-aminocyclohexane (40 mg, 0.16 mmol) in EtOH (1 mL) was added 3,5-bistrifluoromethyl-4-(isocyanato-1-methyl-ethyl)-benzene (48 mg, 0.16 mmol) from the above reaction. The reaction mixture was stirred at 60 °C for 1 h, and completed consumption of the starting material was observed by LC-MS. After removal of the volatile solvent, the residue was dissolved in DMSO (1.5 mL) and purified by prep-HPLC to give 35 mg (35 %) of *N*-{1-[3,5-bis(trifluoromethyl) phenyl]-1-methylethyl}-*N'*-(*cis*-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino} cyclohexyl)urea trifluoroacetate.

ESI-MS *m/e* 547 (*M* + *H*)<sup>+</sup>; <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) δ 13.4 (bs, 1 H), 8.37 (bd, 1 H, *J* = 6.4 Hz), 7.84 (s, 3 H), 7.71 (s, 1 H), 5.56 (bs, 1 H), 4.01 (bs, 1 H), 3.75 (m, 1 H), 3.29 (s, 6 H), 2.25 (s, 3 H), 1.75-1.60 (m, 14 H).

#### Example 3244

*N*-{1-[3,5-Bis(trifluoromethyl)phenyl]-1-methylethyl}-*N'*-(*cis*-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-*N*-methylurea trifluoroacetate

**Step A: Synthesis of *N*-(1-[3,5-bis(trifluoromethyl)phenyl]-1-methylethyl)-*N'*-(*cis*-4-[[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino]cyclohexyl)-*N*-methylurea trifluoroacetate.**

- 3,5-Bistrifluoromethyl-4-(isocyanato-1-methyl-ethyl)-benzene (36 mg, 0.12 mmol) was added to a solution of *cis*-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-1-aminocyclohexane (30 mg, 0.12 mmol) and CH<sub>3</sub>I (0.17 g, 1.2 mmol) in anhydrous benzene (1 mL) under an inert atmosphere. The reaction mixture was stirred at 50 °C for 2 h, and formation of the methylated and protonated products were observed by LC-MS. After removal of the volatile solvent, the residue was dissolved in DMSO (1.5 mL) and purified by prep-HPLC. 20 mg (25 %) of *N*-(1-[3,5-bis(trifluoromethyl)phenyl]-1-methylethyl)-*N'*-(*cis*-4-[[4-(dimethyl amino)-5-methylpyrimidin-2-yl]amino]cyclohexyl)-*N*-methylurea trifluoroacetate was isolated as a white powder.

ESI-MS *m/e* 561 (*M* + *H*)<sup>+</sup>; <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) δ 14.5 (bs, 1 H), 9.19 (bd, 1 H, *J* = 6.0 Hz), 7.84 (s, 2 H), 7.79 (s, 1 H), 7.70 (s, 1 H), 4.87 (s, 1 H), 4.23 (bs, 1 H), 4.14 (m, 1 H), 3.26 (s, 6 H), 2.98 (s, 3 H), 2.23 (s, 3 H), 1.75-1.65 (m, 14 H).

15

### **Example 3245**

***cis*-*N*-(1-[3,5-Bis(trifluoromethyl)phenyl]-1-methylethyl)-4-[[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino]cyclohexanecarboxamide trifluoroacetate**

- 20 Step A: Synthesis of 1-(3,5-bistrifluoromethyl-phenyl)-1-methyl-ethylamine.**

3,5-Bistrifluoromethyl-4-(isocyanato-1-methyl-ethyl)-benzene (0.1 g, 0.33 mmol) was treated with 8-N HCl (4 mL). The acidic aqueous solution was heated for 1 h at 60 °C. After cooling the reaction, NaOH pellets were added to make the aqueous mixture alkaline. The solid precipitates were filtered off, and the basic aqueous was extracted with DCM (2x). The combined organic was washed

- 25 with H<sub>2</sub>O, dried, and concentrated to give 1-(3,5-bistrifluoromethyl-phenyl)-1-methyl-ethylamine: 1-

(3,5-bistrifluoromethyl-phenyl)-1-methyl-ethylamine appeared to be unstable in neat. The product was kept in DCM solution.

ESI-MS  $m/e$  272 ( $M + H$ )<sup>+</sup>

**5 Step B: Synthesis of *cis*-*N*-{1-[3,5-bis(trifluoromethyl)phenyl]-1-methylethyl}-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexanecarboxamide trifluoroacetate.**

To a solution of *cis*-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexanecarboxylic acid (15 mg, 0.05 mmol) and 1-(3,5-bistrifluoromethyl-phenyl)-1-methyl-ethylamine (15 mg, 0.05 mmol) in DCM (1.5 mL) was added HATU (25 mg, 0.06 mmol) and followed  
10 by Et<sub>3</sub>N (10 mg, 0.1mmol). After 4h stirring at room temperature, the reaction was concentrated, dissolved in DMSO (1.5 mL), and purified by prep-HPLC to give 11 mg (30 %) of *cis*-*N*-{1-[3,5-bis(trifluoromethyl)phenyl]-1-methylethyl}-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexanecarboxamide trifluoroacetate.

ESI-MS  $m/e$  532 ( $M + H$ )<sup>+</sup>; <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>)  $\delta$  14.6 (bs, 1 H), 8.64 (bd, 1 H,  $J = 6.0$  Hz),  
15 7.78 (s, 2 H), 7.69 (s, 1 H), 7.30 (d, 1 H,  $J = 7.2$  Hz), 7.16 (s, 1 H), 4.40 (bs, 1 H), 3.30 (s, 6 H), 2.26 (s, 3 H), 2.18 (m, 1 H), 2.07-1.80 (m, 8 H), 1.70 (s, 6 H).

**Example 3246**

**20 3,4-Difluoro-*N*-(*cis*-4-[(4-methoxy-5-methylpyrimidin-2-yl)amino]cyclohexyl)benzamide trifluoroacetate**

**Step A: Synthesis of 2-chloro-4-methoxy-5-methyl pyrimidine.**

2,4-dichloro-5-methyl pyrimidine (0.8 g, 5 mmol) was dissolved in MeOH (10 mL), and 0.5  
25 M-NaOCH<sub>3</sub> in MeOH (10 mL, 5 mmol) was slowly added into the solution. The reaction was stirred for 40 min at room temperature, diluted with H<sub>2</sub>O, and extracted with DCM (3x). The combined

organic was washed with H<sub>2</sub>O (2x) and saline (1x), dried, and concentrated. 0.8 g (99 %) of 2-chloro-4-methoxy-5-methyl pyrimidine was isolated, which was directly used for the next reaction without a further purification.

<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) δ 8.10 (s, 1 H), 4.03 (s, 3 H), 2.12 (s, 3 H).

5

**Step B: Synthesis of N-[*cis*-4-(4-methoxy-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]carbamic acid *tert*-butyl ester.**

- A sealed tube containing 2-chloro-4-methoxy-5-methyl pyrimidine (0.35 g, 2.2 mmol), *cis*-(4-amino-cyclohexyl)-carbamic acid *tert*-butyl ester (0.56 g, 2.4 mmol), DIEA (0.8 mL, 4.5 mmol), and 15 IPA (2 mL) was reacted for 4000 sec at 175 °C in a Personal Microwave Synthesizer. The reaction was diluted with DCM, washed with 1N-HCl and H<sub>2</sub>O, dried, and concentrated. The crude product was purified by column chromatography [silica gel, DCM:MeOH (100:0 to 97:3)]. 0.25 g (34 %) of N-[*cis*-4-(4-methoxy-5-methyl-pyrimidin-2-ylamino)-cyclohexyl] carbamic acid *tert*-butyl ester was isolated.
- 15 ESI-MS *m/e* 337 (M + H)<sup>+</sup>; <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) δ 7.80 (s, 1 H), 4.86 (bd, 1 H, *J* = 6.0 Hz), 4.55 (bs, 1 H), 3.93 (bm, 1 H), 3.89 (s, 3 H), 3.62 (bs, 1 H), 1.97 (s, 3 H), 1.83-1.55 (m, 8 H), 1.45 (s, 9 H).

**Step C: Synthesis of *cis*-4-(4-methoxy-5-methyl-pyrimidin-2-ylamino)-aminocyclohexane.**

- 20 To a solution of N-[*cis*-4-(4-methoxy-5-methyl-pyrimidin-2-ylamino)-cyclohexyl] carbamic acid *tert*-butyl ester (0.24 g, 0.7 mmol) in DCM (10 mL) was added TFA (5 mL). The reaction was stirred for 1.5 h at room temperature. After removal of the volatile solvent, the residue was treated with 4N-NaOH (3 mL). The basic aqueous was extracted with DCM (3x), and combined organic was washed with H<sub>2</sub>O (2x) and brine (1x), and concentrated. 0.13 g (82 %) of *cis*-4-(4-methoxy-5-methyl-  
25 pyrimidin-2-ylamino)-aminocyclohexane was isolated as a yellowish solid.

ESI-MS  $m/e$  237 ( $M + H$ )<sup>+</sup>; <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>)  $\delta$  7.79 (s, 1 H), 5.05 (bd, 1 H,  $J = 6.4$  Hz), 3.99 (bs, 1 H), 3.89 (s, 3 H), 2.92 (bm, 1 H), 2.45 (bs, 2 H), 1.96 (s, 3 H), 1.83-1.45 (m, 8 H).

**Step D: Synthesis of 3,4-difluoro-*N*-[(4-methoxy-5-methylpyrimidin-2-yl)amino]cyclohexylbenzamide trifluoroacetate.**

To a solution of *cis*-4-(4-methoxy-5-methyl-pyrimidin-2-ylamino)-aminocyclohexane (20 mg, 0.08 mmol) in DCM (1 mL) was added 3,4-difluorobenzoyl chloride (14 mg, 0.08 mmol), and followed by Et<sub>3</sub>N (25  $\mu$ L). The reaction was stirred for 2 h at room temperature, and MeOH (0.2 mL) was added to quench the reaction. After removal of the volatile solvent, the residue was dissolved in 10 DMSO (1.5 mL) and purified by prep-HPLC to give 12 mg (40 %) of 3,4-difluoro-*N*-[(4-methoxy-5-methylpyrimidin-2-yl)amino]cyclohexylbenzamide trifluoroacetate as a white powder. ESI-MS  $m/e$  377 ( $M + H$ )<sup>+</sup>; <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>)  $\delta$  15.7 (bs, 1 H), 9.55 (d, 1 H,  $J = 7.2$  Hz), 7.73 (m, 1 H), 7.59 (m, 1 H), 7.57 (s, 1 H), 7.20 (m, 1 H), 6.80 (d, 1 H,  $J = 8.0$  Hz), 4.37 (bs, 1 H), 4.18 (bm, 1 H), 4.09 (s, 3 H), 2.04 (s, 3 H), 1.89-1.75 (m, 8 H).

15

**Example 3247**

***N*-(*cis*-4-[[4-Methyl-6-(methylamino)pyrimidin-2-yl]amino]cyclohexyl)-4-(trifluoromethoxy)benzamide hydrochloride**

20

**Step A: Synthesis of (2-chloro-6-methyl-pyrimidin-4-yl)-methyl-amine.**

2,4-Dichloro-6-methylpyrimidine (10 g, 61.34 mmol) in 50 mL in CH<sub>2</sub>Cl<sub>2</sub> was added 2 M methylamine in methyl alcohol (46.01 mL, 92.02 mmol) at 0°C. The reaction mixture was stirred overnight and then the excess solvent was evaporated off and the material subjected to chromatography 25 (50% hexanes in ethyl acetate) to yield (2-chloro-6-methyl-pyrimidin-4-yl)-methyl-amine (5.835 g, 37.17 mmol, 60.59%) as a white solid.

ESI-MS 158.0 M+H<sup>+</sup>; <sup>1</sup>H NMR (400 MHz, DMSO-d<sub>6</sub>) δ 7.62 (s, 1H), 6.18 (s, 1H), 2.70 (bs, 3H), 2.10 (bs, 3H).

**Step B: Synthesis *N*-(*cis*-4-[[4-methyl-6-(methylamino)pyrimidin-2-yl]amino]cyclohexyl)-4-(trifluoromethoxy)benzamide hydrochloride.**

- To a solution of (2-chloro-6-methyl-pyrimidin-4-yl)-methyl-amine (500 mg, 3.18 mmol) in 3 mL 2-propanol was added *cis*-*N*-(4-amino-cyclohexyl)-4-trifluoromethoxy-benzamide (1.25 g, 4.14 mmol) and DIEA (1.108 mL, 6.36 mmol). The mixture was heated in a microwave synthesizer at 180 °C for 2 hours. The solvent was evaporated and obtained compound was dissolved in CH<sub>2</sub>Cl<sub>2</sub> and was added 2 M HCl in diethyl ether (6.2 mL) to give *N*-(*cis*-4-[[4-methyl-6-(methylamino)pyrimidin-2-yl]amino]cyclohexyl)-4-(trifluoromethoxy)benzamide hydrochloride (1.3014 g, 2.83 mmol, 89 %) as a yellowish solid.

- ESI-MS 424.2 M+H<sup>+</sup>; <sup>1</sup>H NMR (400 MHz, DMSO-d<sub>6</sub>) δ 8.72 (s, 1H), 8.44 (s, 1H), 7.99-7.96 (d, *J*= 8 Hz, 2H), 7.86 (s, 1H), 7.47-7.45 (d, *J*= 8 Hz, 2H), 4.03 (s, 1H), 3.87 (s, 1H), 2.89-2.88 (d, *J*=4 Hz, 3H), 2.20 (s, 3H), 1.85 (bs, 2H), 1.72 (bs, 6H).

**Example 3248**

- N*-({*cis*-4-[(4-Amino-5-methylpyrimidin-2-yl)amino]cyclohexyl)methyl}-3,5-bis(trifluoromethyl)benzamide hydrochloride**

**Step A: Synthesis of *N*-({*cis*-4-[(4-amino-5-methylpyrimidin-2-yl)amino]cyclohexyl)methyl}-3,5-bis(trifluoromethyl)benzamide hydrochloride.**

- To a solution of 2-chloro-5-methyl-pyrimidin-4-ylamine (269 mg, 1.87 mmol) in 1 mL 2-propanol was added *cis*-*N*-(4-amino-cyclohexylmethyl)-3,5-bis-trifluoromethyl-benzamide (689.8 mg, 1.87 mmol) and DIEA (489.54 μL, 2.81 mmol). The mixture was heated in a microwave synthesizer at



180 °C for 2 hours. The solvent was evaporated and the material subjected to chromatography (1-2% methanol/ CH<sub>2</sub>Cl<sub>2</sub>). The obtained compound was dissolved in CH<sub>2</sub>Cl<sub>2</sub> and was added 2 M HCl in diethyl ether (2.2 mL) to give *N*-(*cis*-4-[(4-amino-5-methylpyrimidin-2-yl)amino]cyclohexyl)methyl)-3,5-bis(trifluoromethyl)benzamide hydrochloride (667.1 mg, 1.30 mmol, 70%) as a white solid.

ESI-MS 476.2 M+H<sup>+</sup>; <sup>1</sup>H NMR (400 MHz, DMSO-d<sub>6</sub>) δ 9.16-9.13 (t, *J* = 4 Hz, *J* = 8 Hz, 1H), 8.55 (s, 2H), 8.36-8.31 (bs, 2H), 7.86 (bs, 1H), 7.71 (bs, 1H), 4.07 (bs, 1H), 3.27-3.24 (t, *J* = 8 Hz, *J* = 4 Hz, 2H), 1.91 (bs, 3H), 1.73-1.42 (m, 8H).

10

**Example 3249**

**2-[(2-Chlorophenyl)sulfonyl]-*N*-(*cis*-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide trifluoroacetate**

**15 Step A: Synthesis of *cis*-2-chloro-*N*-[4-(4-dimethylamino-6-methyl-pyrimidin-2ylamino)-cyclohexyl]-nicotinamide.**

*cis*-*N*<sup>2</sup>-(4-Amino-cyclohexyl)-6, *N*<sup>4</sup>, *N*<sup>6</sup>-trimethyl-pyrimidine-2,4-diamine (2.86 g, 11.5 mmol) in 20 mL CH<sub>2</sub>Cl<sub>2</sub> was added 2-chloronicotinoyl chloride (2.02 g, 11.5 mmol), and DIEA (3.9 mL, 23 mmol). The reaction mixture was stirred for an hour. The solvent was evaporated off and the compound was crystallized (2% hexanes in ether) to yield *cis*-2-chloro-*N*-[4-(4-dimethylamino-6-methyl-pyrimidin-2ylamino)-cyclohexyl]-nicotinamide (4.2 g, 10.8 mmol, 94%).

ESI-MS 389.2 M+H<sup>+</sup>; <sup>1</sup>H NMR (400 MHz, DMSO-d<sub>6</sub>) δ 13.1 (bs, 1H), 8.72-8.70 (d, *J* = 8 Hz, 1H), 8.49-8.46 (dt, *J* = 8 Hz, *J* = 4 Hz, 1H), 8.04 (s, 1H), 7.89-7.87 (dd, *J* = 4 Hz, *J* = 4Hz, 1H), 7.52-7.47 (q, *J* = 8 Hz, *J* = 4Hz, 1H), 6.27 (s, 1H), 3.95 (bs, 2H), 3.27 (bs, 6H), 2.31 (s, 3H), 1.82-1.74 (m, 8H).

25

**Step B: Synthesis of 2-[(2-chlorophenyl)sulfonyl]-N-(*cis*-4-[[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino]cyclohexyl)nicotinamide trifluoroacetate.**

To a solution of *cis*-2-chloro-N-[4-(4-dimethylamino-6-methyl-pyrimidin-2ylamino)-cyclohexyl]-nicotinamide (50 mg, 0.128 mmol) in 1 mL dioxane was added 2-chlorobenzenethiol (37.1 mg, 0.256 mmol), and Cs<sub>2</sub>CO<sub>3</sub> (83.4 mg, 0.256 mmol). The mixture was heated in a microwave synthesizer at 180 °C for 1 hour. After the solvent was evaporated, the compound was then subjected to purification by prep HPLC to give *cis*-2-(2-chloro-phenylsulfanyl)-N-[4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-nicotinamide trifluoroacetate (23.2 mg, 30 %) as a white solid. ESI-MS *m/e* 497.4 M+H<sup>+</sup>;

To a solution of *cis*-2-(2-chloro-phenylsulfanyl)-N-[4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-nicotinamide trifluoroacetate (23.2 mg, 0.038 mmol) in 1mL CH<sub>2</sub>Cl<sub>2</sub> was added 3-chloroperoxybenzoic acid (31.5 mg 0.14 mmol). The reaction mixture was stirred for 15 h and quenching with NaHCO<sub>3</sub>. The solvent was evaporated and compound was then subjected to purification by prep HPLC to give 2-[(2-chlorophenyl)sulfonyl]-N-(*cis*-4-[[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino]cyclohexyl)nicotinamide trifluoroacetate (8.9 mg, 0.014 mmol, 36%) as a white solid.

ESI-MS *m/e* 529.2 M+H<sup>+</sup>; <sup>1</sup>H NMR (400 MHz, DMSO-d<sub>6</sub>) δ 11.98 (s, 1H), 8.61-8.59 (m, 2H), 8.24-8.21 (dd, *J* = 4 Hz, 4 Hz, 1H), 8.08-8.06 (d, *J* = 8 Hz, 1H), 7.79-7.74 (m, 2H), 7.71-7.69 (t, *J* = 4 Hz, 1H), 7.64-7.62 (d, *J* = 8 Hz, 1H), 7.58 (bs, 1H), 6.32 (s, 1H), 3.94 (bs, 2H), 3.21 (s, 3H), 3.15 (s, 3H), 2.28 (s, 3H), 1.84-1.78 (m, 8 H).

#### Example 3250

N-(*cis*-4-[[4-(4-Methylquinolin-2-yl)methyl]amino]cyclohexyl)-3,5-bis(trifluoromethyl)benzamide trifluoroacetate

**Step A: Synthesis of 4-methyl-2-vinyl-quinoline.**

To 50 mL toluene in a 150 mL rounded-bottom flask, was added 2-chlorolepidine (1 g, 63 mmol), tetrakis (triphenylphosphine) palladium (0) (65 mg, 0.63 mmol), triphenyl phosphine (0.495 g, 1.89 mmol) and vinyltributyl tin (2.2 g, 6.76 mmol). The mixture was refluxed at 116 °C under N<sub>2</sub> for 2 hours. The reaction mixture was concentrated and purified by silica gel with 0-10% EtOAc/Hexane to yield 4-methyl-2-vinyl-quinoline (720 mg, 4.26 mmol, 76%).

ESI MS m/e: 170.0 M+H<sup>+</sup>; <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) δ 7.96 (d, J = 8 Hz, 1H), 7.85 (d, J = 8 Hz, 1H), 7.58 (dd, J<sub>1</sub> = J<sub>2</sub> = 8 Hz, 1H), 7.43 (dd, J<sub>1</sub> = J<sub>2</sub> = 8 Hz, 1H), (7.15 (s, 1H), 6.89 (dd, J<sub>1</sub> = 16 Hz, J<sub>2</sub> = 12 Hz, 1H), 6.15 (d, J = 16 Hz, 1H), 5.54 (d, J = 8 Hz, 1H), 2.60 (s, 3H)

10

**Step B: Synthesis of 4-methyl-quinoline-2-carbaldehyde.**

To a 500 mL rounded bottom flask filled with 40 mL 90% THF/H<sub>2</sub>O was added 4-methyl-2-vinyl-quinoline (1.2 g, 7.1 mmol) NMO (1.29 g, 10.65 mmol), and OsO<sub>4</sub> (1.3 mL, 0.21 mmol) under N<sub>2</sub>. The mixture was stirred at room temperature overnight under N<sub>2</sub>. The reaction mixture was quenched with saturated solution of Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, and the organic phase was then extracted EtOAc (100 mL x 4). The organic layer was combined and washed with brine, and concentrated. The crude product, 1-(4-methyl-quinolin-2-yl)-ethane-1,2-diol (1.5 g), was directly used to next Step without further purification.

To 60 mL 90%THF/ H<sub>2</sub>O, was added 1.5 g of the crude 1-(4-methyl-quinolin-2-yl)-ethane-1,2-diol and NaIO<sub>4</sub> (1.4 g, 8.86 mmol). The mixture was stirred at room temperature under N<sub>2</sub> for 6 hours. The organic phase was extracted with EtOAc (100 mL x4, combined, and dried by anhydrous MgSO<sub>4</sub>. It was concentrated to purify by silica gel column using 0-5% EtOAc /Hexane to yield 4-methyl-quinoline-2-carbaldehyde (600 mg, 3.5 mL, 49.4%).

ESI MS m/e: 172.0 M+H<sup>+</sup>; <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) δ 10.2 (s, 1H), 8.25 (d, J = 8 Hz, 1H), 8.07 (d, J = 8 Hz, 1H), 7.88 (s, 1H), 7.82 (dd, J<sub>1</sub> = J<sub>2</sub> = 8 Hz, 1H), 7.71 (dd, J<sub>1</sub> = J<sub>2</sub> = 8 Hz, 1H), 2.79 (s, 3H).

**Step C: Synthesis of resin bound *cis*-(4-amino cyclohexyl) carbamic acid fluorenylmethyl ester.**

In a 30 mL manual synthesis vessel, 2-(3,5 dimethoxy-4-formyl) phenoxy ethyl polystyrene resin (0.5 gram; 0.90 mmol/gram) and *cis*-(4-amino cyclohexyl) carbamic acid fluorenylmethyl ester 2 (453mg, 1.35 mmol) were suspended in 4 mL of DMF. To this suspension was added a solution of

5 NaBH(OAc)<sub>3</sub> (299 mg, 1.35 mmol) in 1% acetic acid/DMF solution (4 mL). After shaking the mixture overnight in a rotary shaker, the solution was removed by filtration and the resin washed sequentially with DMF, 10% DIEA/DMF, DMF, DCM and MeOH. The washing sequence was repeated four times. The resulting resin bound intermediate was dried under vacuum for 20 minutes.

**Step D: Synthesis of resin bound-*cis* -[4- (4- methyl-quinolin-2-methyl-amino)-cyclohexyl]-**

10 **carbamic acid fluorenylmethyl ester.**

To the resin bound intermediate (0.315 mmol) was added 4-methyl-quinoline-2-carbaldehyde (96 mg, 0.564 mmol) in dimethyl acetamide (5 mL) and 1% acetic acid (.050 mL). The resin suspension was mixed in a rotary shaker for 1 hour at room temperature. Sodium cyanoborohydride (195 mg, 3.15 mmol) was added to the resin suspension and the reaction was mixed overnight at room

15 temperature. At the completion of the reaction, the solution was filtered and the resin washed sequentially with DMF, 10%DIEA/DMF, DMF, DCM and MeOH. The washing sequence was repeated four times. The resulting resin bound intermediate 5 was dried under vacuum for 20 minutes

**Step E: Synthesis of *N*-(*cis*-4-[(4-methylquinolin-2-yl)methyl]amino)cyclohexyl)-3,5-**

20 **bis(trifluoromethyl) benzamide trifluoroacetate.**

The resin bound intermediate (0.171 mmol) was treated with 20% piperidine in DMF (3 mL) for 30 minutes at room temperature. After 30 minutes, the solution was filtered and the resin washed with DMF, DCM and MeOH. The washing sequence was repeated four times.

The deprotected resin bound intermediate was suspended in DMF (1.0 mL). 3,5-bis-

25 trifluoromethylbenzoyl chloride (47 mg, 0.171 mmol) was added to the resin suspension followed by

triethylamine (0.0519 mL, 0.513 mmol). The reaction was mixed for 30 minutes at room temperature. The solution was then filtered and the resin washed sequentially with DMF, DCM and MeOH. The washing sequence was repeated four times.

- After drying under vacuum for 20 minutes, the resin bound intermediate was treated with 5 mL of TFA solution (TFA /CH<sub>2</sub>Cl<sub>2</sub> /H<sub>2</sub>O 20:20:1 v/v). The reaction was shaken for 2 hours and the TFA solution was collected after filtration. The TFA was removed by rotary evaporation and the compound subjected to purification by preparative HPLC to give *N*-(*cis*-4-[[4-(methyl quinolin-2-yl)methyl]amino]cyclohexyl)-3,5-bis(trifluoromethyl)benzamide trifluoroacetate (3.8 mg; 8%) as a white solid.
- ESI MS *m/e* 510.2 M+H<sup>+</sup>; <sup>1</sup>H NMR (400MHz, CD<sub>3</sub>OD)  $\delta$  (ppm): 8.56 (m, 1H), 8.42 (s, 2H), 8.19 (m, 3H), 7.82 (m, 1H), 7.69 (m, 1H), 7.39 (s, 1H), 4.6 (s, 2H), 4.14 (m, 1H), 3.40 (m, 1H), 2.78 (s, 3H), 2.22-1.81 (m, 8H).

#### 15 Example 3251

*cis*-*N*-[(1*S*)-1-(4-Chlorophenyl)ethyl]-4-[[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino]cyclohexanecarboxamide trifluoroacetate

#### 20 Step A: Synthesis of *cis*-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexanecarboxylic acid.

- A mixture of (2-chloro-5-methyl-pyrimidin-4-yl)-dimethyl-amine (28.9 g, 0.186 mol) and 4-amino-cyclohexanecarboxylic acid (20 g, 0.140 mol) in 100 mL of toluene was stirred at room temperature for 5 minutes to form a slurry under N<sub>2</sub>. To the slurry, was added Pd(OAc)<sub>2</sub> (0.34 g, 1.5 x 10<sup>-3</sup> mol), 2-(di-*t*-butylphosphine) biphenyl (0.24, 0.8 mmol) and NaOtBu (33.64 g, 0.35 mol). The mixture was heated and refluxed at 118 °C under N<sub>2</sub> for 2 hours. The reaction mixture was concentrated to give a brown solid. The above brown solid was dissolved with 100 mL MeOH and 5

mL H<sub>2</sub>O, neutralized with acetic acid. The precipitate was filtered and washed with cold water (5mL x 2) and toluene (100 mL x 2) to yield *cis*-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexanecarboxylic acid (36.7 g, 0.132 mol, 94%) as a white solid.

ESI MS *m/e* 279 M+H<sup>+</sup>; <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) δ 7.46 (s, 1H), 4.20 (s, 1H), 3.3 (s, 6H), 3.2 (s, 1H), 2.48 (m, 1H), 2.27 (s, 3H), 2.15-1.63 (m, 8H).

**Step B: Synthesis of *cis*-*N*-[(1*S*)-1-(4-chlorophenyl)ethyl]-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide trifluoroacetate.**

To a solution of (*S*)-1-(4-chloro-phenyl)-ethylamine (61.5 mg, 0.395 mmol) in 10 mL DCM was added *cis*-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexanecarboxylic (100 mg, 0.395 mmol), HATU (150 mg, 0.395 mmol), and 5 drops of Et<sub>3</sub>N. The reaction mixture was stirred at room temperature under N<sub>2</sub> overnight. The solvent was evaporated and the material subjected to prep-HPLC to give *cis*-*N*-[(1*S*)-1-(4-chlorophenyl)ethyl]-4-{[4-(dimethyl amino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide trifluoroacetate (20 mg, 0.048 mmol, 13.4%) as a white solid.

ESI MS *m/e* 416.3 M+H<sup>+</sup>; <sup>1</sup>H NMR (400 MHz, DMSO-*d*<sub>6</sub>) δ 8.24-8.12 (d, 1H), 7.55 (s, 1H), 7.32-7.10 (m, 4H), 4.87 (m, 1H), 2.47 (s, 6H), 2.28 (bs, 1H), 2.18 (s, 3H), 1.81-1.39 (m, 8H), 1.31(d, 3H).

**Example 3252**

*cis*-*N*-[(1*R*)-1-(4-Bromophenyl)ethyl]-4-{[4-methylquinolin-2-yl]amino}cyclohexanecarboxamide trifluoroacetate

**Step A: Synthesis of *cis*-4-(4-methylquinolin-2-ylamino)cyclohexanecarboxylic acid.**

A mixture of 2-chloro-4-methyl-quinoline (6.67, 0.0375 mol) and 4-amino-cyclohexanecarboxylic acid (4.48 g, 0.0312 mol) was dissolved in 100 mL of toluene and stirred at room temperature for 5 minutes to form a slurry under N<sub>2</sub>. To the slurry, was added Pd(OAc)<sub>2</sub> (0.077 g,

3.43 $\times 10^{-4}$  mol), 2-(di-*t*-butylphosphine) biphenyl (0.093, 3.12 $\times 10^{-4}$  mol) and NaOtBu (7.5g, 0.078 mol). The above material was heated and refluxed at 118 °C for 2 hours. The reaction mixture was concentrated under reduced pressure to give a brown solid. The above brown solid was dissolved with 100 mL MeOH and 5 mL H<sub>2</sub>O, neutralized with acetic acid. The precipitates were filtered and washed  
 5 with cold water (5 mL x 2) and toluene (100 mL x 2) to yield *cis*-4-(4-methylquinolin-2-ylamino)cyclohexanecarboxylic acid (7.45 g, 0.026 mol, 84%) as a white solid.  
 ESI MS *m/e* 285.1 M+H<sup>+</sup>; <sup>1</sup>H NMR (400 MHz, DMSO-*d*<sub>6</sub>)  $\delta$  7.78 (d, 1H), 7.49 (m, 1H), 7.21 (m, 1H), 6.85 (d, 1H), 6.72 (s, 1H), 4.19 (s, 1H), 2.54-2.53 (m, 2H), 2.46 (s, 3H).

10 **Step B: Synthesis of *cis*-*N*-[(1*R*)-1-(4-bromophenyl)ethyl]-4-[(4-methylquinolin-2-yl)amino]cyclohexanecarboxamide trifluoroacetate.**

To a solution of (*R*)-1-(4-bromo-phenyl)-ethylamine (77.4 mg, 0.39 mmol) in 10 mL DCM was added *cis*-4-(4-methylquinolin-2-ylamino)cyclohexanecarboxylic acid (100 mg, 0.35 mmol), HATU (148 mg, 0.39 mmol), and 5 drops of Et<sub>3</sub>N. The reaction mixture was stirred at room  
 15 temperature under N<sub>2</sub> overnight. The solvent was evaporated and the material subjected to prep HPLC to give *cis*-*N*-[(1*R*)-1-(4-bromophenyl)ethyl]-4-[(4-methylquinolin-2-yl)amino]cyclohexanecarboxamide trifluoroacetate (24 mg, 0.052 mmol, 14.7%) as white solid.  
 ESI MS *m/e* 468.2 M+H<sup>+</sup>; <sup>1</sup>H NMR (400 MHz, DMSO-*d*<sub>6</sub>)  $\delta$  9.18-9.07 (s, 1H), 7.94-7.84 (t, 1H), 7.74-7.68 (t, 1H), 7.46-7.42 (m, 2H), 7.22-7.17 (m, 2H), 7.00-6.94 (s, 1H), 4.86 (m, 1H), 4.11 (s, 1H), 2.58 (s,  
 20 3H), 2.40-2.23 (m, 2H), 1.88-1.49 (m, 8H), 1.33-1.19 (d, 3H).

**Example 3253**

*trans*-2-(4-Chlorophenyl)-*N*-(*cis*-4-[[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino]cyclohexyl)cyclopropanecarboxamide trifluoroacetate

25

**Step A: Synthesis of *trans*-3-(4-chlorophenyl)-N-methoxy-N-methylacrylamide.**

A solution of 4-chlorobenzaldehyde (3 g, 21.34 mmol) and N-methoxy-N-methyl-2-(triphenylphosphoranylidene)acetamide (8.5 g, 23.47 mmol) in  $\text{CH}_2\text{Cl}_2$  was stirred at room temperature for 16 h. The solvent was removed in vacuo, and the crude product was purified by

- 5 column chromatography on silica gel (0-20% EtOAc / Hex) to afford *trans*-3-(4-chlorophenyl)-N-methoxy-N-methylacrylamide (4.78 g, 99%) as colorless crystals.

ESI MS  $m/e$  226.1  $\text{M}+\text{H}^+$ ;  $^1\text{H}$  NMR (400 MHz,  $\text{CDCl}_3$ )  $\delta$  7.66 (d,  $J = 5.6$  Hz, 1H), 7.45 (d,  $J = 8.4$  Hz, 2H), 7.33 (d,  $J = 8.4$  Hz, 2H), 6.99 d,  $J = 5.6$  Hz, 1H), 3.75 (s, 3H), 3.29 (s, 3H)

**10 Step B: Synthesis of N-methoxy-N-methyl-*trans*-2-(4-chlorophenyl) cyclo- propanecarboxamide.**

To a solution of trimethylsulfoxonium iodide (9.3 g, 42.4 mmol) in DMSO (40 mL) was added sodium hydride (1.7 g, 42.4 mmol) at room temperature in portions. After 1 h, a solution of *trans*-3-(4-chlorophenyl)-N-methoxy-N-methylacrylamide (4.78 g, 21.2 mmol) in DMSO (20 mL) was added via cannula at r.t. The mixture was stirred for another 6 h, and then it was quenched with saturated aqueous

- 15  $\text{NH}_4\text{Cl}$  solution, extracted with  $\text{CH}_2\text{Cl}_2$ , washed with brine and dried over anhydrous  $\text{MgSO}_4$ . The

crude product was purified by column chromatography (0-50 % EtOAc / Hex) to afford N-methoxy-N-methyl-*trans*-2-(4-chlorophenyl)cyclopropanecarboxamide as colorless oil (4.76 g, 88.5 %).

ESI MS  $m/e$  239.9  $\text{M}+\text{H}^+$ ;  $^1\text{H}$  NMR (400 MHz,  $\text{CDCl}_3$ )  $\delta$  7.24 (d,  $J = 8$  Hz, 2H), 7.06 (d,  $J = 8$  Hz, 2H), 3.69 (s, 3H), 3.23 (s, 3H), 2.47 (m, 1H), 2.37 (bs, 1H), 1.63 (m, 1H), 1.27 (m, 1H)

20

**Step C: Synthesis of *trans*-2-(4-chloro-phenyl)cyclopropanecarboxylic acid.**

A suspension of afford N-methoxy-N-methyl-*trans*-2-(4-chlorophenyl)cyclopropanecarboxamide (4.76 g, 18.76 mmol) and potassium tert-butoxide (4.76 g, 18.76 mmol) in the TBME (130 mL) and water (0.68 mL, 37.5 mmol) was stirred at room temperature

- 25 for 16h. The mixture was acidified by slowly adding concentrated HCl, and the aqueous mixture was extracted with  $\text{CH}_2\text{Cl}_2$  (3x60 mL). The combined organic layers were washed with brine and dried over



anhydrous  $\text{MgSO}_4$ . The solvent was removed in vacuo and the product was obtained as white solid (3.447 g, 93.5 %)

ESI MS  $m/e$  197.0  $\text{M}+\text{H}^+$ ;  $^1\text{H}$  NMR (400 MHz,  $\text{CDCl}_3$ )  $\delta$  11.4 (bs, 1H), 7.28 (d,  $J = 8.4$  Hz, 2H), 7.06 (d,  $J = 8.4$  Hz, 2H), 2.60 (ddd,  $J_1 = 9.5$  Hz,  $J_2 = 6.6$  Hz,  $J_3 = 4.1$  Hz, 1H), 1.89 (ddd,  $J_1 = 9.5$  Hz,  $J_2 = 5.2$  Hz,  $J_3 = 4.2$  Hz, 1H), 1.69 (dt,  $J_1 = 9.5$  Hz,  $J_2 = 5.1$  Hz, 1H), 1.40 (ddd,  $J_1 = 8.4$  Hz,  $J_2 = 5.2$  Hz,  $J_3 = 4.3$  Hz, 1H)

**Step D: Synthesis of *trans*-2-(4-chlorophenyl)-*N*-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)cyclopropanecarboxamide trifluoroacetate.**

- 10 To a mixture of *trans*-2-(4-chloro-phenyl)cyclopropanecarboxylic acid (22.1 mg, 0.112 mmol) and 2-chloro-4-dimethylamino-5-methylpyrimidine (28 mg, 0.112 mmol) in  $\text{CH}_2\text{Cl}_2$  (5 mL) was added HATU (42.6 mg, 0.112 mmol) at r.t. After 30 sec  $\text{Et}_3\text{N}$  (5 drops) was added dropwise. The mixture was stirred overnight. *trans*-2-(4-chlorophenyl)-*N*-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)cyclopropanecarboxamide trifluoroacetate (20 mg, 37%) was obtained from
- 15 prep-HPLC.

ESI MS  $m/e$ : 428.4  $\text{M}+\text{H}^+$ ;  $^1\text{H}$  NMR (400 MHz,  $\text{CDCl}_3$ )  $\delta$  8.49 (bs, 1H), 7.23 (d,  $J = 8$  Hz, 2H), 7.02 (d,  $J = 8$  Hz, 2H), 6.28 (d,  $J = 8$  Hz, 1H), 4.11 (m, 1H), 3.99 (m, 1H), 3.29 (s, 6H), 2.45 (ddd,  $J_1 = 12$  Hz,  $J_2 = 8$  Hz,  $J_3 = 4$  Hz, 1H), 2.25 (s, 3H), 1.85-1.65 (m, 11H), 1.58 (dt,  $J_1 = 8$  Hz,  $J_2 = 4$  Hz, 1H), 1.18 (dt,  $J_1 = 8$  Hz,  $J_2 = 4$  Hz, 1H)

20

**Example 3254**

*N*-(cis-4-[(4,5-Dimethylpyrimidin-2-yl)amino]cyclohexyl)-3,5-bis(trifluoromethyl)benzamide trifluoroacetate

25

**Step A: Synthesis of 2-chloro-4, 5-dimethylpyrimidine.**

A mixture of 2, 4-dichloro-5-methylpyrimidine (0.3 g, 1.84 mmol),  $\text{AlMe}_3$  (0.3 mL, 2.0M) and  $\text{Pd}(\text{PPh}_3)_4$  (85 mg, 4%mol) in dry THF (5 mL) was heated in a microwave synthesizer at 150 °C for 20 min. The solvent was removed in vacuo and the crude product subjected to chromatography (0-40 % EtOAc/Hex) to yield 2-chloro-4, 5-dimethylpyrimidine (0.13 g, 50 %) as yellow solid.

- 5 ESI MS  $m/e$ : 143.1  $\text{M}+\text{H}^+$ ;  $^1\text{H}$  NMR (400 MHz,  $\text{CDCl}_3$ )  $\delta$  8.24 (s, 1H), 2.45 (s, 3H), 2.22 (s, 3H)

**Step B: Synthesis of *N*-(*cis*-4-[(4,5-dimethylpyrimidin-2-yl)amino]cyclohexyl)-3,5-bis(trifluoromethyl)benzamide trifluoroacetate.**

- A mixture of 2-chloro-4, 5-dimethylpyrimidine (30 mg, 0.21 mmol), *N*-(*cis*-4-aminocyclohexyl)-3,5-bis(trifluoromethyl)benzamide (74.6 mg, 0.21 mmol),  $\text{Pd}(\text{OAc})_2$  (0.47 mg, 0.01 equiv.), dppf (1.16 mg, 0.01 equiv.) and  $\text{KOtBu}$  (59 mg, 0.53 mmol) in toluene (3 mL) was heated in a microwave synthesizer at 150 °C for 20 min. The solvent was removed in vacuo and the crude product subjected to purification by HPLC to give *N*-(*cis*-4-[(4,5-dimethyl pyrimidin-2-yl)amino]cyclohexyl)-3,5-bis(trifluoromethyl)benzamide trifluoroacetate (25 mg, 21%) as yellow solid.
- 15 ESI MS  $m/e$  461.2  $\text{M}+\text{H}^+$ ;  $^1\text{H}$  NMR (400 MHz,  $\text{CDCl}_3$ )  $\delta$  8.36 (s, 3H), 7.99 (s, 1H), 4.47 (d, 1H), 4.23 (bs, 1H), 2.52 (s, 3H), 2.13 (s, 3H), 1.95-1.65 (m, 8H)

**Example 3255**

- 20 *N*-(3,4-Difluorophenyl)-*N'*-(*cis*-4-[[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino]cyclohexyl)urea trifluoroacetate

**Step A: Synthesis of *N*-(3,4-difluorophenyl)-*N'*-(*cis*-4-[[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino]cyclohexyl)urea trifluoroacetate.**

- 25 *cis*-*N*<sup>2</sup>-(4-Amino-cyclohexyl)-5,*N*<sup>4</sup>,*N*<sup>4</sup>-trimethyl-pyrimidine-2,4-diamine (30 mg, 0.12 mmol) was dissolved in 1 mL of DMSO. 1,2-Difluoro-4-isocyanato-benzene was added to the solution, and the

solution was stirred overnight. The crude was purified by HPLC to give *N*-(3,4-difluoro phenyl)-*N*'-(*cis*-4-[[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino]cyclohexyl)urea trifluoroacetate as a white solid. (32.2 mg, 54.0%).

ESI MS *m/e* 405.3 ( $M + H^+$ );  $^1H$  NMR (400 MHz,  $CDCl_3$ )  $\delta$  13.45 (s, 1H), 8.35 (d,  $J = 8.0$  Hz, 1H),  
5 7.67 (s, 1H), 7.52-7.47 (m, 1H), 7.28-7.26 (m, 1H), 7.07-6.99 (m, 2H), 4.00 (m, 1H), 3.96 (m, 1H),  
3.32 (s, 6H), 2.27 (s, 3H), 1.78-1.67 (m, 8H).

#### Example 3256

#### 10 2-[(3,4-Difluorophenyl)amino]-*N*-(*cis*-4-[[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino]cyclohexyl)nicotinamide

#### Step A: Synthesis of 2-[(3,4-difluorophenyl)amino]-*N*-(*cis*-4-[[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino]cyclohexyl)nicotinamide.

15 3,4-Difluoro-aniline (20.6 uL, 0.204 mmol) was dissolved in 1.0 mL of DMF. NaH (8.2 mg, 0.204 mmol) was added to the solution and allowed to stir for 10 minutes. 2-Chloro-*N*-[4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-nicotinamide (40 mg, 0.102 mmol) was added and the mixture was stirred for another 5 minutes. The reaction was heated via Smith Synthesizer at 200 °C for 1 hour. The crude was purified by silica column chromatography. The  
20 column was flushed with 200 mL mixture methanol and methylene (1:9) and 100 mL of methanol to give 2-[(3,4-difluorophenyl)amino]-*N*-(*cis*-4-[[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino]cyclohexyl)nicotinamide as a white solid. (30.0 mg, 61.2%)

ESI-MS *m/z* 482.5 ( $M + H^+$ ) ;  $^1H$  NMR (400 MHz,  $CDCl_3$ )  $\delta$  8.32 (dd,  $J = 4.8, 1.6$  Hz, 1H), 7.92-7.86 (m, 1H), 7.71 (dd,  $J = 7.6, J = 1.6$  Hz, 1H), 7.64 (s, 1H), 7.19-7.03 (m, 2H), 6.76-6.73 (m, 1H), 6.34 (d,  $J = 6.8$  Hz, 1H), 4.95 (s, 1H), 4.11-4.03 (m, 2H), 2.96 (s, 6H), 2.15 (s, 3H), 1.90-1.68 (m, 8H).

**Example 3257**

*N*-(4-Chlorophenyl)-*N'*-(*cis*-4-[[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino]cyclohexyl)-*N*-ethylurea trifluoroacetate

5

**Step A: Synthesis of *N*-(4-chlorophenyl)-*N'*-(*cis*-4-[[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino]cyclohexyl)-*N*-ethylurea trifluoroacetate.**

- cis*-*N*<sup>2</sup>-(4-Amino-cyclohexyl)-5,*N'*,*N'*-trimethyl-pyrimidine-2,4-diamine (75 mg, 0.30 mmol) and 1,1'-carbonyldiimidazole (58 mg, 0.36 mmol) were dissolved in 1 mL of methylene chloride in a
- 10 Smith Synthesizer vial and allowed to stir at room temperature overnight. To the vial, (4-chloro-phenyl)-ethyl-amine (94 mg, 0.60 mmol) was added. The solution was heated via Smith Synthesizer at 130 °C for 30 minutes. The solvent was evaporated, and 1 mL of methanol was added to the crude to redissolve it. The crude was then purified by HPLC to give *N*-(4-chlorophenyl)-*N'*-(*cis*-4-[[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino]cyclohexyl)-*N*-ethylurea trifluoroacetate as a white
- 15 solid. (25.0 mg, 15%)

ESI MS *m/e* 431.3 (M + H<sup>+</sup>) ; <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) δ 14.0 (s, 1H), 8.65 (d, *J* = 6.4 Hz, 1H), 7.53 (dd, *J* = 9.2, *J* = 2.4 Hz, 2H), 7.43 (b, 1H), 7.28 (dd, *J* = 9.2, *J* = 2.4 Hz, 2H), 4.48 (bs, 1H), 4.16 (bs, 1H), 3.99 (m, 2H), 3.39 (s, 6H), 2.34 (s, 3H), 1.84-1.60 (m, 8H), 1.21 (t, *J* = 7.0 Hz, 3H).

20

**Example 3258**

*N*-(*cis*-4-[[5-Methyl-4-(methylamino)pyrimidin-2-yl]amino]cyclohexyl)-2-[[2-(trifluoromethyl)pyrimidin-4-yl]oxy]acetamide trifluoroacetate

- 25 **Step A: Synthesis of resin bound *N*-methylamine.**

2-(3,5 Dimethoxy-4-formyl)phenoxy ethyl polystyrene resin (1.0 gram; 0.90 mmol/gram) and methylamine 2 M in methanol (5.85 mL, 11.7 mmol) in 15 mL of  $\text{CH}_2\text{Cl}_2$  was suspended in a fritted synthesis flask. To this suspension was added a solution of  $\text{NaBH}(\text{OAc})_3$  (0.117 mol) in  $\text{CH}_2\text{Cl}_2$  (15 mL). After shaking the mixture overnight in a rotary shaker, the solution was removed by filtration.

- 5 The resulting resin bound N-methylamine was washed sequentially with  $\text{CH}_2\text{Cl}_2$ , DMF, and MeOH. The washing sequence was repeated four times. The resin bound N-methylamine was dried under vacuum for 20 minutes.

**Step B: Synthesis of resin bound-4-(N-methyl-5 methyl- 2-chloro)-pyrimidine.**

- The resin bound N-methylamine was suspended in DMF (10 mL). To the resin suspension was  
10 added 2,4 dichloro-5-methyl-pyrimidine (1.35 mmol) followed by triethylamine (0.273 mL, 2.70 mmol). The reaction mixture was shaken overnight at room temperature. The solution was removed by filtration and the resin washed sequentially with DMF,  $\text{CH}_2\text{Cl}_2$  and MeOH. The wash sequence was repeated four times. The resulting resin bound intermediate was dried under vacuum for 20 minutes..

- 15 **Step C: Synthesis of resin bound *cis*-N-(4-N-methyl-5 methyl-pyrimidyl-2y)cyclohexane-1,4-diamine.**

- The resin bound intermediate was divided up into three portions and each portion was transferred into a 5 mL Smith synthesizer reaction vessel. The resins (0.272 mmol) were separately suspended in anhydrous dioxane (3 mL). To each suspension was added *cis* 1,4 diamino cyclohexane  
20 (0.405 mmol), tris(dibenzylideneacetone)dipalladium(O) (0.027 mol), 2,2 bis(diphenylphosphino)-1,1 binaphthyl (BINAP) (0.081mmol) and sodium tert-butoxide (1.35 mmol). The reactions were heated in a microwave synthesizer at 140°C for 20 minutes. At the completion of the reaction, the resin suspension was transferred to 8 mL fritted tubes. The solutions were removed by filtration. The resins were sequentially washed with MeOH,  $\text{H}_2\text{O}$ , MeOH,  $\text{CH}_2\text{Cl}_2$ , and MeOH. The washing sequence was  
25 repeated three times. The resulting resin bound intermediate was dried under vacuum for 20 minutes.

**Step D: Synthesis of *cis*-N-[4-(4-N-methyl-5 methyl-pyrimidyl-2-yl-amino)-cyclohexyl]-bromoacetamide.**

The resin bound intermediate (0.27 mmol) was suspended in DCM (3 mL). To the resin  
5 suspension was added bromoacetyl bromide (0.27 mmol) and DIEA (.094 mL; 0.54 mmol). The  
reaction was mixed in a rotary shaker for 45 minutes at room temperature. At the completion of the  
reaction, the solution was removed by filtration. The resin was sequentially washed with DCM, DMF,  
DCM, and MeOH. The washing sequence was repeated three times. The resulting resin bound  
intermediate was dried under vacuum for 20 minutes.

10

**Step E: Synthesis of *N*-(*cis*-4-([5-methyl-4-(methylamino)pyrimidin-2-yl]amino)cyclohexyl)-2-([2-(trifluoromethyl)pyrimidin-4-yl]oxy)acetamide trifluoroacetate.**

The resin bound intermediate from Step D (0.27 mmol) was transferred into a 5 mL microwave  
synthesizer vial. The resin was suspended in anhydrous DMF ( 2 mL). To the resin suspension was  
15 added 4 hydroxy-2-trifluoromethyl pyrimidine (0.54 mmol) and potassium carbonate (0.54 mmol)  
The reaction was heated in a microwave oven at 140 °C for 30 minutes. At the completion of the  
reaction, the resin suspension was transferred to an 8 mL fritted tube. The solution was removed by  
filtration and the resin washed sequentially with DMF, DCM, MeOH. The wash sequence repeated  
three times.

20 After drying under vacuum for 20 minutes, the resin bound intermediate was treated with 5 mL  
of TFA solution (TFA /CH<sub>2</sub>Cl<sub>2</sub> /H<sub>2</sub>O 20:20:1 v/v). The reaction was shaken for 2 hours and the TFA  
solution was collected after filtration. The TFA was removed by rotary evaporation and the compound  
subjected to purification by preparative HPLC to give *N*-(*cis*-4-([5-methyl-4-(methylamino)pyrimidin-  
2-yl]amino)cyclohexyl)-2-([2-(trifluoromethyl)pyrimidin-4-yl]oxy)acetamide trifluoroacetate (2.1 mg.  
25 5%) as a white solid.

ESI MS  $m/e$  440.3  $M+H^+$ ;  $^1H$  NMR (400MHz,  $CD_3OD$ )  $\delta$  (ppm): 8.69 (m, 1H), 7.45 (m, 1H), 7.21-7.17 (m, 1H), 4.95 (m, 2H), 4.03 (bs, 1H), 3.82 (bs, 1H), 3.04 (s, 3H), 1.98 (s, 3H), 1.93-1.61 (m, 8H).

### 5 Example 3259

**2,2-Difluoro-*N*-(*cis*-4-[[4-methyl-6-(methylamino)pyrimidin-2-yl]amino]cyclohexyl)-1,3-benzodioxole-5-carboxamide trifluoroacetate**

#### Step A: Synthesis of resin bound *N*-methylamine.

- 10        2-(3,5 Dimethoxy-4-formyl)phenoxy ethyl polystyrene resin (1.0 gram; 0.94mmol/gram) and methylamine (0.0122 mol) in 15 mL of  $CH_2Cl_2$  was suspended in a fritted synthesis flask. To this suspension was added a solution of  $NaBH(OAc)_2$  (0.0122 mol) in  $CH_2Cl_2$  (15 mL). After shaking the mixture overnight in a rotary shaker, the solution was removed by filtration. The resulting resin bound *N*-methylamine was washed sequentially with  $CH_2Cl_2$ , DMF, and MeOH. The washing sequence was
- 15 repeated four times. The resin bound *N*-methylamine was dried under vacuum for 20 minutes.

#### Step B: Synthesis of resin bound-4-(*N*-methyl-6 methyl-2-chloro)-pyrimidine.

- The resin bound *N*-methylamine was suspended in DMF (10 mL). To the resin suspension was added 2,4 dichloro-6-methyl-pyrimidine (1.41 mmol) followed by triethylamine (0.393 mL, 2.82 mmol). The reaction mixture was shaken at 40 °C overnight. The solution was removed by filtration
- 20 and the resin washed sequentially with DMF,  $CH_2Cl_2$  and MeOH. The wash sequence was repeated four times. The resulting resin bound intermediate was dried under vacuum for 20 minutes.

#### Step C: Synthesis of resin bound *cis*-*N*-(4-(*N*-methyl-6methyl-pyrimidyl-2yl)cyclohexane-1,4-diamine.

The resin bound intermediate was divided up into three portions and each portion was transferred into a 5 mL Smith synthesizer reaction vessel. The resins (0.282 mmol) were separately suspended in a 1:1 solution of IPA/H<sub>2</sub>O (3 mL). To each suspension was added *cis* 1,4 diamino cyclohexane (0.85 mmol) and DIEA (0.295mL; 1.69 mmol). The reactions were heated in a microwave synthesizer at 180°C for 4.5 hours. The resins were pooled together; and the solution removed by filtration. The resin was sequentially washed with IPA, H<sub>2</sub>O, MeOH, CH<sub>2</sub>Cl<sub>2</sub>, and MeOH. The washing sequence was repeated three times. The resulting resin bound intermediate was dried under vacuum for 20 minutes.

10 **Step D: Synthesis of 2,2-difluoro-*N*-(*cis*-4-[[4-methyl-6-(methylamino)pyrimidin-2-yl]amino]cyclohexyl)-1,3-benzodioxole-5-carboxamide trifluoroacetate.**

The resin bound intermediate was suspended in DMF (8mL). To the resin suspension was added the 2,2 difluoro 1,3 benzodioxole 5- carbonyl chloride (0.846 mmol) and triethylamine ( 0.256 mL; 1.69 mmol). The reaction was shaken in a rotary mixer at room temperature for 45 minutes. The solution was removed by filtration and the resin washed sequentially with DMF, CH<sub>2</sub>Cl<sub>2</sub>, MeOH. The wash sequence repeated three times.

After drying under vacuum for 20 minutes, the resin bound intermediate was treated with 15 mL of TFA solution (TFA /CH<sub>2</sub>Cl<sub>2</sub> /H<sub>2</sub>O 20:20:1 v/v). The reaction was shaken for 2 hours and the TFA solution was collected after filtration. The TFA was removed by rotary evaporation and the compound subjected to purification by preparative HPLC to give 2,2-difluoro-*N*-(*cis*-4-[[4-methyl-6-(methylamino)pyrimidin-2-yl]amino]cyclohexyl)-1,3-benzodioxole-5-carboxamide trifluoroacetate (2.0 mg. 2%) as a white solid.

ESI MS *m/e* 420.5 M<sup>+</sup>H<sup>+</sup>; <sup>1</sup>H NMR (400MHz, CD<sub>3</sub>OD) δ (ppm): 8.24 (m, 1H), 7.72-7.68 (m, 2H), 7.31-7.29 (m, 1H), 5.86 (s, 1H), 4.18-3.99 (m, 2H), 2.99 (s, 3H), 2.25 (s, 3H), 1.93-1.80 (m, 8H).



**Examples 3260-3262**

Compounds 3260 to 3262 were prepared in a similar manner as described in Example 3242 using the appropriate bromoacetophemone and amine intermediate from Step A.

**5 Examples 3263-3267**

Compounds 3263 to 3267 were prepared in a similar manner as described in Example 3243 using the appropriate acid and amine intermediate from Step A.

**Examples 3268-3272**

10 Compounds 3268 to 3272 were prepared in a similar manner as described in Example 3244 using the appropriate isocyanate and amine intermediate from Step A.

**Examples 3273-3275**

Compounds 3273 to 3275 were prepared in a similar manner as described in Example 3245  
15 using the appropriate amine and carboxylic intermediate from Step A.

**Examples 3276-3280**

Compounds 3276 to 3280 were prepared in a similar manner as described in Example 3246  
using the appropriate acid chloride and amine intermediate from Step D.

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**Examples 3281-3291**

Compounds 3281 to 3291 were prepared in a similar manner as described in Example 2656  
using the appropriate thioderivative and amine intermediate from Step A.

**25 Examples 3292-3303**

Compounds 3292 to 3303 were prepared in a similar manner as described in Example 3251 using the appropriate amine and carboxylic intermediate from Step B.

#### **Examples 3304-3307**

- 5        Compounds 3304 to 3307 were prepared in a similar manner as described in Example 3252 using the appropriate amine and carboxylic intermediate from Step B.

#### **Examples 3308**

- Compounds 3308 were prepared in a similar manner as described in Example 3251 using the  
10    appropriate amine and carboxylic intermediate from Step B.

#### **Examples 3309-3315**

- Compounds 3309 to 3315 were prepared in a similar manner as described in Example 3252 using the appropriate amine and carboxylic intermediate from Step B.

15

#### **Examples 3316-3320**

Compounds 3316 to 3320 were prepared in a similar manner as described in Example 3253 using the appropriate aldehyde and amine intermediate from Step D.

#### **20    Examples 3321-3345**

Compounds 3321 to 3345 were prepared in a similar manner as described in Example 3255 using the appropriate isocyanate and amine intermediate from Step A.

#### **Examples 3346-3355**

- 25        Compounds 3346 to 3355 were prepared in a similar manner as described in Example 3257 using the appropriate aniline and amine intermediate from Step A.

**Examples 3356-3357**

Compounds 3356 to 3357 were prepared in a similar manner as described in Example 2638 using the appropriate hydroxyaryl derivative and bromide intermediate from Step B.

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**Examples 3358-3359**

Compounds 3358 to 3359 were prepared in a similar manner as described in Example 3259 using the appropriate acid chloride and amine intermediate from Step D.

10 **Examples 3360-3365**

Compounds 3360 to 3365 were prepared in a similar manner as described in Example 3259 using the appropriate hydroxyaryl derivative and bromide intermediate from Step E.

**Examples 3366-3367**

15 Compounds 3366 to 3367 were prepared in a similar manner as described in Example 3250 using the appropriate acid chloride derivative and amine intermediate from Step E.

**Examples 3368-3381**

Compounds 3368 to 3381 were prepared in a similar manner as described in Example 3249  
20 using the appropriate thiophenol and nicotinamide intermediate from Step A.

**Example 3382**

Compound 3382 was prepared in a similar manner as described in Example 2497 using 4-trifluoromethoxy-benzoyl chloride and the amine intermediate from Step E.

Ex. No.	compound name	MS	class
3260	1-(4-chlorophenyl)-2-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)amino]ethanone	402.4 (M + H)	2
3261	1-(3,4-difluorophenyl)-2-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)amino]ethanone	404.4 (M + H)	3
3262	1-(4-bromophenyl)-2-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)amino]ethanone	446.3 (M + H)	3
3263	N-{1-[3,5-bis(trifluoromethyl)phenyl]-1-methylethyl}-N'-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}-cyclohexyl)urea	547.6 (M + H)	2
3264	N-[1-(4-chlorophenyl)-1-methylethyl]-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea	445.3 (M + H)	1
3265	N-[1-(4-chlorophenyl)-1-methylethyl]-N'-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)urea	445.2 (M + H)	2
3266	N-[1-(4-chlorophenyl)cyclopropyl]-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea	443.3 (M + H)	1
3267	N-[1-(4-chlorophenyl)cyclopropyl]-N'-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)urea	443.4 (M + H)	1
3268	N-{1-[3,5-bis(trifluoromethyl)phenyl]-1-methylethyl}-N'-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methylurea	561.4 (M + H)	3
3269	N-[1-(4-chlorophenyl)-1-methylethyl]-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methylurea	459.6 (M + H)	1
3270	N-[1-(4-chlorophenyl)-1-methylethyl]-N'-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methylurea	459.5 (M + H)	2
3271	N-[1-(4-chlorophenyl)cyclopropyl]-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methylurea	457.5 (M + H)	2
3272	N-[1-(4-chlorophenyl)cyclopropyl]-N'-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methylurea	457.2 (M + H)	3
3273	cis-N-[1-(4-chlorophenyl)-1-methylethyl]-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide	430.3 (M + H)	2
3274	cis-N-[1-(4-chlorophenyl)-1-methylethyl]-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide	430.4 (M + H)	3
3275	cis-N-[1-[3,5-bis(trifluoromethyl)phenyl]-1-methylethyl]-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide	532.3 (M + H)	3
3276	4-chloro-N-{cis-4-[(4-methoxy-5-methylpyrimidin-2-yl)amino]cyclohexyl}benzamide	375.1 (M + H)	3
3277	N-{cis-4-[(4-methoxy-5-methylpyrimidin-2-yl)amino]cyclohexyl}-4-(trifluoromethoxy)benzamide	425.1 (M + H)	3
3278	3,4-dichloro-N-{cis-4-[(4-methoxy-5-methylpyrimidin-2-yl)amino]cyclohexyl}benzamide	408.9 (M + H)	2
3279	3,5-dichloro-N-{cis-4-[(4-methoxy-5-methylpyrimidin-2-yl)amino]cyclohexyl}benzamide	409.1 (M + H)	3

Ex. No.	compound name	MS	class
3280	N-{cis-4-[(4-methoxy-5-methylpyrimidin-2-yl)amino]cyclohexyl}-3,5-bis(trifluoromethyl)benzamide	477.2 (M + H)	3
3281	N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-[(4-fluorophenyl)sulfonyl]nicotinamide	513.4 (M + H)	1
3282	2-[(4-chlorophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide	529.4 (M + H)	1
3283	2-[(3-chlorophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide	529.4 (M + H)	2
3284	2-[(2-chlorophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide	529.3 (M + H)	2
3285	2-[(3-bromophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide	573.6 (M + H)	2
3286	N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-[(4-methoxyphenyl)sulfonyl]-nicotinamide	525.4 (M + H)	3
3287	N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-[[3-(trifluoromethyl)phenyl]sulfonyl]-nicotinamide	563.5 (M + H)	2
3288	N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-[(4-methylphenyl)sulfonyl]nicotinamide	509.6 (M + H)	2
3289	2-[(4-bromophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide	573.5 (M + H)	2
3290	N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-[(2-methyl-3-furyl)sulfonyl]nicotinamide	499.4 (M + H)	3
3291	N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-[[4-(trifluoromethyl)phenyl]sulfonyl]-nicotinamide	563.5 (M + H)	2
3292	cis-N-[(1S)-1-(4-chlorophenyl)ethyl]-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide	416.3 (M + H)	2
3293	cis-N-[(1S)-1-[3,5-bis(trifluoromethyl)phenyl]ethyl]-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide	518.4 (M + H)	3
3294	cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1R)-1-(2-fluorophenyl)ethyl]cyclohexanecarboxamide	400.3 (M + H)	3
3295	cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1S)-1-(2-fluorophenyl)ethyl]cyclohexanecarboxamide	400.3 (M + H)	3
3296	cis-N-[(1S)-1-(4-bromophenyl)ethyl]-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide	460.3 (M + H)	1
3297	cis-N-[(1R)-1-(4-bromophenyl)ethyl]-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide	460.3 (M + H)	2
3298	4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1S)-1-[3-(trifluoromethyl)phenyl]ethyl]cyclohexanecarboxamide	450.2 (M + H)	1
3299	4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1R)-1-[3-(trifluoromethyl)phenyl]ethyl]cyclohexanecarboxamide	450.3 (M + H)	1
3300	4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1S)-1-[2-(trifluoromethyl)phenyl]ethyl]cyclohexanecarboxamide	450.4 (M + H)	1
3301	4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1R)-1-[2-(trifluoromethyl)phenyl]ethyl]cyclohexanecarboxamide	450 (M + H)	3

Ex. No.	compound name	MS	class
3302	cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-{(1S)-1-[4-(trifluoromethoxy)phenyl]ethyl}-cyclohexanecarboxamide	466.4 (M + H)	1
3303	cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-{(1R)-1-[4-(trifluoromethoxy)phenyl]ethyl}-cyclohexanecarboxamide	466.4 (M + H)	2
3304	cis-N-[(1S)-1-(4-bromophenyl)ethyl]-4-[(4-methylquinolin-2-yl)amino]cyclohexanecarboxamide	466.4 (M + H)	3
3305	cis-N-[(1R)-1-(4-chlorophenyl)ethyl]-4-[(4-methylquinolin-2-yl)amino]cyclohexanecarboxamide	422.3 (M + H)	2
3306	cis-N-[(1S)-1-(4-chlorophenyl)ethyl]-4-[(4-methylquinolin-2-yl)amino]cyclohexanecarboxamide	422.4 (M + H)	2
3307	cis-4-{[4-methylquinolin-2-yl]amino}-N-{(1R)-1-[3-(trifluoromethyl)phenyl]ethyl}cyclohexanecarboxamide	456.3 (M + H)	1
3308	cis-N-{(1S)-1-(4-bromophenyl)ethyl}-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide	460 (M + H)	1
3309	cis-N-{(1S)-1-[3,5-bis(trifluoromethyl)phenyl]ethyl}-4-{[4-methylquinolin-2-yl]amino}cyclohexanecarboxamide	524.2 (M + H)	2
3310	cis-4-{[4-methylquinolin-2-yl]amino}-N-{(1R)-1-[4-(trifluoromethoxy)phenyl]ethyl}cyclohexanecarboxamide	472.4 (M + H)	3
3311	cis-N-{(1R)-1-(2-fluorophenyl)ethyl}-4-[(4-methylquinolin-2-yl)amino]cyclohexanecarboxamide	406.2 (M + H)	3
3312	cis-N-{(1S)-1-(2-fluorophenyl)ethyl}-4-[(4-methylquinolin-2-yl)amino]cyclohexanecarboxamide	406.3 (M + H)	1
3313	cis-4-{[4-methylquinolin-2-yl]amino}-N-{(1R)-1-[2-(trifluoromethyl)phenyl]ethyl}cyclohexanecarboxamide	456.2 (M + H)	2
3314	cis-4-{[4-methylquinolin-2-yl]amino}-N-{(1S)-1-[2-(trifluoromethyl)phenyl]ethyl}cyclohexanecarboxamide	456.3 (M + H)	1
3315	cis-4-{[4-methylquinolin-2-yl]amino}-N-{(1S)-1-[3-(trifluoromethyl)phenyl]ethyl}cyclohexanecarboxamide	456 (M + H)	1
3316	trans-2-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-cyclopropanecarboxamide	428.4 (M + H)	1
3317	trans-2-(3-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-cyclopropanecarboxamide	428 (M + H)	1
3318	trans-2-(3,4-difluorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-cyclopropanecarboxamide	430.2 (M + H)	1
3319	trans-2-(3,4-dichlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-cyclopropanecarboxamide	462.3 (M + H)	1
3320	trans-2-[3,5-bis(trifluoromethyl)phenyl]-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-cyclopropanecarboxamide	530.2 (M + H)	1
3321	N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-(2-methoxyphenyl)urea	399.3 (M + H)	2

Ex. No.	compound name	MS	class
3322	N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})-N'-(3-methoxyphenyl)urea	399.3 (M + H)	3
3323	N-(3,4-dimethoxyphenyl)-N'-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})urea	429.4 (M + H)	1
3324	N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})-N'-(2-fluorophenyl)urea	387.5 (M + H)	2
3325	N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})-N'-(3-fluorophenyl)urea	387.4 (M + H)	2
3326	N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})-N'-(4-fluorophenyl)urea	387.4 (M + H)	1
3327	N-(3,4-difluorophenyl)-N'-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})urea	405.3 (M + H)	2
3328	N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})-N'-[3-(trifluoromethyl)phenyl]urea	437.3 (M + H)	
3329	N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})-N'-[4-(trifluoromethyl)phenyl]urea	437.2 (M + H)	
3330	N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})-N'-[2-(trifluoromethoxy)phenyl]urea	453.1 (M + H)	1
3331	N-(3-chloro-4-fluorophenyl)-N'-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})urea	421.1 (M + H)	2
3332	N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})-N'-[4-fluoro-3-(trifluoromethyl)phenyl]urea	455.3 (M + H)	
3333	N-(4-chlorophenyl)-N'-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})urea	403.2 (M + H)	2
3334	N-[3,5-bis(trifluoromethyl)phenyl]-N'-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})urea	505.3 (M + H)	2
3335	N-(4-bromophenyl)-N'-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})urea	447.1 (M + H)	1
3336	N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})-N'-(2-methylphenyl)urea	383.2 (M + H)	2
3337	N-(3,4-dichlorophenyl)-N'-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})urea	437.3 (M + H)	2
3338	N-(2,4-dichlorophenyl)-N'-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})urea	437.3 (M + H)	2
3339	N-(3,5-dichlorophenyl)-N'-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})urea	437.3 (M + H)	2
3340	N-(3-chlorophenyl)-N'-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})urea	403.4 (M + H)	
3341	N-benzyl-N'-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})urea	383.5 (M + H)	2
3342	N-(2,5-dichlorophenyl)-N'-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})urea	437.3 (M + H)	2
3343	N-(2,3-dichlorophenyl)-N'-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})urea	437.3 (M + H)	3
3344	N-[2-chloro-6-(trifluoromethyl)phenyl]-N'-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})urea	471.3 (M + H)	3

Ex. No.	compound name	MS	class
3345	N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})-N'-(2,4,6-trichlorophenyl)urea	471.3 (M + H)	1
3346	N'-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})-N-(2-fluorophenyl)-N-methylurea	401.2 (M + H)	3
3347	N-(2-chlorophenyl)-N'-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})-N-methylurea	417.1 (M + H)	2
3348	N-(2,4-dichlorophenyl)-N'-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})-N-methylurea	451.2 (M + H)	1
3349	N'-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})-N-ethyl-N-[2-(trifluoromethoxy)-phenyl]urea	481.3 (M + H)	2
3350	N'-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})-N-ethyl-N-phenylurea	397.1 (M + H)	1
3351	N'-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})-N-ethyl-N-[4-(trifluoromethoxy)-phenyl]urea	481.1 (M + H)	1
3352	N'-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})-N-methyl-N-[2-(trifluoromethoxy)-phenyl]urea	467.2 (M + H)	1
3353	N-(4-chlorophenyl)-N'-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})-N-ethylurea	431.3 (M + H)	1
3354	N-[3,5-bis(trifluoromethyl)phenyl]-N'-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})-N-ethylurea	533.1 (M + H)	1
3355	N'-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})-N-ethyl-N-(3-methylphenyl)urea	411.3 (M + H)	1
3356	N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})-2-{{[1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl]oxy}acetamide	456.4 (M + H)	1
3357	N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})-2-{{[6-(trifluoromethyl)pyrimidin-4-yl]oxy}acetamide	454.2 (M + H)	3
3358	2,2-difluoro-N-(cis-4-{{[4-methyl-6-(methylamino)pyrimidin-2-yl]amino}cyclohexyl})-1,3-benzodioxole-5-carboxamide	420.5 (M + H)	
3359	4-chloro-N-(cis-4-{{[4-methyl-6-(methylamino)pyrimidin-2-yl]amino}cyclohexyl})-3-(trifluoromethyl)benzamide	442.1 (M + H)	
3360	2-(3,4-dichlorophenoxy)-N-(cis-4-{{[4-methyl-6-(methylamino)pyrimidin-2-yl]amino}cyclohexyl})acetamide	438.3 (M + H)	1
3361	N-(cis-4-{{[5-methyl-4-(methylamino)pyrimidin-2-yl]amino}-cyclohexyl})-2-{{[2-(trifluoromethyl)pyrimidin-4-yl]oxy}-acetamide	440.3 (M + H)	
3362	N-(cis-4-{{[5-methyl-4-(methylamino)pyrimidin-2-yl]amino}-cyclohexyl})-2-{{[1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl]oxy}acetamide	442.5 (M + H)	3
3363	N-(cis-4-{{[5-methyl-4-(methylamino)pyrimidin-2-yl]amino}-cyclohexyl})-2-{{[6-(trifluoromethyl)pyrimidin-4-yl]oxy}acetamide	440.3 (M + H)	3



Ex. No.	compound name	MS	class
3364	N-(cis-4-{[5-methyl-4-(methylamino)pyrimidin-2-yl]amino}-cyclohexyl)-2-{[1-methyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]oxy}acetamide	442.4 (M + H)	3
3365	N-(cis-4-{[5-methyl-4-(methylamino)pyrimidin-2-yl]amino}-cyclohexyl)-2-{[3-(trifluoromethyl)-1H-pyrazol-5-yl]oxy}-acetamide	428.2 (M + H)	
3366	3,4-difluoro-N-(cis-4-{[(4-methylquinolin-2-yl)methyl]amino}cyclohexyl)benzamide	410.3 (M + H)	3
3367	3-chloro-N-(cis-4-{[(4-methylquinolin-2-yl)methyl]amino}cyclohexyl)benzamide	408.3 (M + H)	
3368	N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2-{(4-fluorophenyl)sulfonyl}nicotinamide	513.5 (M + H)	2
3369	2-[(2-chlorophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide	513.5 (M + H)	2
3370	2-[(3-chlorophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide	529.1 (M + H)	2
3371	2-[(4-chlorophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide	529.1 (M + H)	3
3372	2-[(2-bromophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide	573.3 (M + H)	3
3373	2-[(3-bromophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide	575.4 (M + H)	2
3374	2-[(4-bromophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide	573.2 (M + H)	3
3375	N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2-{(2-methylphenyl)sulfonyl}nicotinamide	509.5 (M + H)	2
3376	N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2-{(3-methylphenyl)sulfonyl}nicotinamide	509.5 (M + H)	3
3377	N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2-{(4-methylphenyl)sulfonyl}nicotinamide	509.5 (M + H)	2
3378	N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2-{(2-methoxyphenyl)sulfonyl}nicotinamide	525.3 (M + H)	3
3379	N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2-{(3-methoxyphenyl)sulfonyl}nicotinamide	525.3 (M + H)	3
3380	N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2-{(4-methoxyphenyl)sulfonyl}nicotinamide	525.3 (M + H)	3
3381	N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2-{[2-(trifluoromethyl)phenyl]sulfonyl}nicotinamide	563.4 (M + H)	3
3382	N-(cis-4-{[4-methylquinolin-2-yl]amino}cyclohexyl)-4-(trifluoromethoxy)benzamide	444.4 (M + H)	1

**Example 3383**

**4-Chloro-*N*-[*cis*-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3-fluoro-benzamide hydrochloride**

- 5 **Step A: Synthesis of 4-chloro-*N*-[*cis*-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3-fluoro-benzamide hydrochloride.**

- To a solution of *N*<sup>2</sup>-(*cis*-4-amino-cyclohexyl)-6,*N*<sup>4</sup>,*N*<sup>4</sup>-trimethyl-pyrimidine-2,4-diamine obtained in step A of example 3127 (300 mg) in DMF (3 mL) were added 4-chloro-3-fluoro-benzoic acid (252 mg), Et<sub>3</sub>N (0.42 mL), HOBT-H<sub>2</sub>O (276 mg), and EDC-HCl (277 mg). The reaction mixture
- 10 was stirred at ambient temperature for 1 day. The reaction mixture was poured into saturated aqueous NaHCO<sub>3</sub> and the aqueous layer was extracted with CHCl<sub>3</sub> (three times). The combined organic layer was dried over MgSO<sub>4</sub>, filtered, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, 15% to 60% EtOAc in hexane). The solution of the above purified material in EtOAc (5 mL) was added 4 M hydrogen chloride in EtOAc (10 mL). The
- 15 mixture was stirred at ambient temperature for 1 hr and concentrated. The residue was suspended in Et<sub>2</sub>O (20 mL) and the suspension was stirred at ambient temperature for 2 hr. The precipitate was collected by filtration, washed with Et<sub>2</sub>O, and dried at 80 °C under reduced pressure to give 4-chloro-*N*-[*cis*-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3-fluoro-benzamide hydrochloride (335 mg) as a white solid.
- 20 ESI MS *m/e* 406, M (free) + H<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.64-2.01 (m, 8 H), 2.35 (s, 3 H), 3.14 (s, 3 H), 3.26 (s, 3 H), 4.02-4.31 (m, 2 H), 5.74 (s, 1 H), 6.84-6.96 (m, 1 H), 7.40-7.49 (m, 1 H), 7.53-7.60 (m, 1 H), 7.69 (dd, *J* = 9.7, 1.9 Hz, 1 H), 8.48-8.65 (m, 1 H), 12.93-13.08 (m, 1 H).

25 **Example 3384**

**3-Chloro-*N*-[*cis*-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-5-fluoro-benzamide hydrochloride**

**Step A: Synthesis of 3-chloro-*N*-[*cis*-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-5-fluoro-benzamide hydrochloride.**

Using the procedure for the step A of example 3383, the title compound was obtained.

ESI MS *m/e* 406, *M* (free) +  $H^+$ ;  $^1H$  NMR (300 MHz,  $CDCl_3$ )  $\delta$  1.64-2.05 (m, 8 H), 2.36 (s, 3 H), 3.15 (s, 3 H), 3.26 (s, 3 H), 4.01-4.30 (m, 2 H), 5.75 (s, 1 H), 6.45-6.54 (m, 1 H), 7.17-7.23 (m, 1 H), 7.40-7.47 (m, 1 H), 7.57-7.61 (m, 1 H), 8.60-8.71 (m, 1 H), 13.07-13.19 (m, 1 H).

**Example 3385**

**10 *N*-[*cis*-4-(4-Dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3,4,5-trifluoro-benzamide hydrochloride**

**Step A: Synthesis of *N*-[*cis*-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3,4,5-trifluoro-benzamide hydrochloride.**

15 Using the procedure for the step A of example 3383, the title compound was obtained.

ESI MS *m/e* 408, *M* (free) +  $H^+$ ;  $^1H$  NMR (300 MHz,  $CDCl_3$ )  $\delta$  1.62-2.01 (m, 8 H), 2.36 (s, 3 H), 3.14 (s, 3 H), 3.26 (s, 3 H), 4.00-4.32 (m, 2 H), 5.75 (s, 1 H), 6.70-6.81 (m, 1 H), 7.47-7.59 (m, 2 H), 8.54-8.66 (m, 1 H), 12.92-13.08 (m, 1 H).

20

**Example 3386**

**3-Chloro-4-fluoro-*N*-[*cis*-4-(5-methyl-4-methylamino-pyrimidin-2-ylamino)-cyclohexyl]-benzamide hydrochloride**

**25 Step A: Synthesis of (2-chloro-5-methyl-pyrimidin-4-yl)-methyl-amine.**

To the solution of 2,4-dichloro-5-methylpyrimidine (5.00 g) in THF (50 mL) were added  $iPr_2NEt$  (6.4 mL) and 40% aqueous  $MeNH_2$  (4.78 mL). The mixture was stirred at ambient temperature for 12 hr and concentrated under reduced pressure. To the residue was added saturated

aqueous NaHCO<sub>3</sub> and the aqueous layer was extracted with CHCl<sub>3</sub> (three times). The combined organic layer was dried over MgSO<sub>4</sub>, filtered, concentrated, and purified by medium-pressure liquid chromatography (NH-silica gel, 9% to 20% EtOAc in hexane) to give (2-chloro-5-methyl-pyrimidin-4-yl)-methyl-amine (3.55 g) as a white solid.

- 5 ESI MS m/e 408, M + H<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 2.01 (d, J = 0.8 Hz, 3 H), 3.07 (d, J = 5.0 Hz, 3 H), 4.89-5.06 (m, 1 H), 7.79 (s, 1 H).

**Step B: Synthesis of 3-chloro-4-fluoro-N-[cis-4-(5-methyl-4-methylamino-pyrimidin-2-ylamino)-cyclohexyl]-benzamide hydrochloride.**

- 10 Using the procedure for the step B of example 3228, the title compound was obtained.

ESI MS m/e 392, M (free) + H<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, DMSO-d<sub>6</sub>) δ 1.64-1.98 (m, 11 H), 2.94 (d, J = 4.5 Hz, 3 H), 3.80-4.08 (m, 2 H), 7.48-7.67 (m, 2 H), 7.87-7.95 (m, 1 H), 8.08-8.51 (m, 4 H), 11.95-12.03 (m, 1 H).

15

**Example 3387**

**4-Chloro-N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3-fluoro-benzamide hydrochloride**

- 20 **Step A: Synthesis of 4-chloro-N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3-fluoro-benzamide hydrochloride.**

- To a solution of N<sup>2</sup>-(cis-4-amino-cyclohexyl)-5,N<sup>4</sup>-trimethyl-pyrimidine-2,4-diamine obtained in step C of example 3119 (250 mg) in DMF (4 mL) were added 4-chloro-3-fluoro-benzoic acid (209 mg), Et<sub>3</sub>N (0.36 mL), HOBt-H<sub>2</sub>O (230 mg), and EDC-HCl (230 mg). The reaction mixture was stirred at ambient temperature for 16 hr. The reaction mixture was poured into saturated aqueous NaHCO<sub>3</sub> and the aqueous layer was extracted with CHCl<sub>3</sub> (three times). The combined organic layer was dried over MgSO<sub>4</sub>, filtered, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, 20% to 40% EtOAc in

hexane). The solution of the above purified material in EtOAc (10 mL) was added 4 M hydrogen chloride in EtOAc (0.5 mL). The mixture was stirred at ambient temperature for 1 hr and concentrated.

The residue was suspended in Et<sub>2</sub>O (10 mL) and the suspension was stirred at ambient temperature for 4 hr. The precipitate was collected by filtration, washed with Et<sub>2</sub>O, and dried at 80 °C under

- 5 reduced pressure to give 4-chloro-*N*-[*cis*-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3-fluoro-benzamide hydrochloride (208 mg) as a white solid.

ESI MS *m/e* 406, *M* (free) + H<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.65-2.00 (m, 8 H), 2.26 (s, 3 H), 3.31 (s, 6 H), 3.98-4.27 (m, 2 H), 6.53-6.72 (m, 1 H), 7.20-7.27 (m, 1 H), 7.41-7.59 (m, 2 H), 7.64-7.73 (m, 1 H), 8.53-8.73 (m, 1 H), 12.76-12.95 (m, 1 H).

10

#### Example 3388

**3-Chloro-*N*-[*cis*-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-5-fluoro-benzamide hydrochloride**

15

**Step A: Synthesis of 3-chloro-*N*-[*cis*-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-5-fluoro-benzamide hydrochloride.**

Using the procedure for the step A of example 3387, the title compound was obtained.

- ESI MS *m/e* 406, *M* (free) + H<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.64-2.01 (m, 8 H), 2.26 (s, 3 H), 3.30 (s, 6 H), 4.02-4.25 (m, 2 H), 7.02-7.28 (m, 3 H), 7.46-7.53 (m, 1 H), 7.63-7.68 (m, 1 H), 8.48-8.60 (m, 1 H), 12.70-12.84 (m, 1 H).
- 20

#### Example 3389

- 25 ***N*-[*cis*-4-(4-Dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3,4,5-trifluoro-benzamide hydrochloride**

**Step A: Synthesis of *N*-[*cis*-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-**

**3,4,5-trifluoro-benzamide hydrochloride.**

Using the procedure for the step A of example 3387, the title compound was obtained.

ESI MS *m/e* 408, M (free) + H<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.60-2.02 (m, 8 H), 2.26 (s, 3 H), 3.31 (s, 6 H), 4.01-4.26 (m, 2 H), 6.65-6.76 (m, 1 H), 7.21-7.29 (m, 1 H), 7.48-7.60 (m, 2 H), 8.57-8.69 (m, 1 H), 12.73-12.91 (m, 1 H).

**Example 3390**

*N*-[*cis*-4-(4-Dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3,5-difluoro-  
10 benzamide hydrochloride

**Step A: Synthesis of *N*-[*cis*-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3,5-difluoro-benzamide hydrochloride.**

Using the procedure for the step D of example 3119, the title compound was obtained.

15 ESI MS *m/e* 390, M (free) + H<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.61-2.06 (m, 8 H), 2.26 (s, 3 H), 3.31 (s, 6 H), 4.01-4.29 (m, 2 H), 6.55-6.70 (m, 1 H), 6.84-7.01 (m, 1 H), 7.18-7.43 (m, 3 H), 8.54-8.71 (m, 1 H), 12.77-12.97 (m, 1 H).

**20 Example 3391**

2-(3,4-Difluoro-phenyl)-*N*-[*cis*-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-acetamide hydrochloride

**Step A: Synthesis of 2-(3,4-difluoro-phenyl)-*N*-[*cis*-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-acetamide hydrochloride.**

Using the procedure for the step A of example 3387, the title compound was obtained.

25 ESI MS *m/e* 404, M (free) + H<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.57-1.94 (m, 8 H), 2.24 (s, 3 H), 3.29 (s, 6 H), 3.47 (s, 2 H), 3.80-3.97 (m, 1 H), 4.05-4.18 (m, 1 H), 6.01-6.15 (m, 1 H), 6.95-7.28 (m, 4

H), 8.46-8.86 (m, 1 H), 12.81-13.01 (m, 1 H).

#### Example 3392

- 5 *N*-[*cis*-4-(4-Amino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3-chloro-4-fluoro-benzamide hydrochloride

#### Step A: Synthesis of 2-chloro-5-methyl-pyrimidin-4-ylamine.

- To the solution of 2,4-dichloro-5-methylpyrimidine (1.00 g) in IPA (2 mL) was added 28% aqueous NH<sub>3</sub> (2 mL). The mixture was heated in a microwave synthesizer at 120°C for 20 min. To the mixture was added saturated aqueous NaHCO<sub>3</sub> and the aqueous layer was extracted with CHCl<sub>3</sub> (three times). The combined organic layer was dried over MgSO<sub>4</sub>, filtered, concentrated, and purified by medium-pressure liquid chromatography (NH-silica gel, 20% to 50% EtOAc in hexane) to give 2-chloro-5-methyl-pyrimidin-4-ylamine (151 mg) as a white solid.
- 10 ESI MS *m/e* 143, M<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>) δ 1.94 (s, 3 H), 7.81 (s, 1 H).

#### Step B: Synthesis of *N*-[*cis*-4-(4-amino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3-chloro-4-fluoro-benzamide hydrochloride.

- Using the procedure for the step B of example 3228, the title compound was obtained.
- 20 ESI MS *m/e* 378, M (free) + H<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, DMSO-*d*<sub>6</sub>) δ 1.63-1.94 (m, 8 H), 1.91 (s, 3 H), 3.79-4.00 (m, 2 H), 7.52 (t, *J* = 8.9 Hz, 1 H), 7.63-7.70 (m, 1 H), 7.78-7.99 (m, 2 H), 8.07-8.13 (m, 1 H), 8.28-8.48 (m, 1 H), 11.86-11.96 (m, 1 H).

#### 25 Example 3393

2-(3,4-Dichloro-phenoxy)-*N*-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-acetamide hydrochloride

**Step A: Synthesis of 2-(3,4-dichloro-phenoxy)-N-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-acetamide hydrochloride.**

Using the procedure for the step A of example 3198, the title compound was obtained.

ESI MS  $m/e$  438, M (free)<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>)  $\delta$  1.59-2.03 (m, 8 H), 3.17 (s, 3 H), 3.27 (s, 3 H), 3.88-4.08 (m, 1 H), 4.11-4.25 (m, 1 H), 4.43 (s, 2 H), 5.96 (d,  $J$  = 7.5 Hz, 1 H), 6.66-6.79 (m, 1 H), 6.88 (dd,  $J$  = 8.9, 3.0 Hz, 1 H), 7.10 (d,  $J$  = 3.0 Hz, 1 H), 7.37 (d,  $J$  = 8.9 Hz, 1 H), 7.43-7.53 (m, 1 H), 8.69-8.83 (m, 1 H), 13.21 (brs, 1 H).

**10 Example 3394**

**N-[*cis*-4-(4-Dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-2-(3-methoxy-phenoxy)-acetamide hydrochloride**

**Step A: Synthesis of N-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-2-(3-**

**15 methoxy-phenoxy)-acetamide hydrochloride.**

Using the procedure for the step A of example 3198, the title compound was obtained.

ESI MS  $m/e$  400, M (free) + H<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>)  $\delta$  1.63-2.03 (m, 8 H), 3.16 (s, 3 H), 3.27 (s, 3 H), 3.82 (s, 3 H), 3.92-4.08 (m, 1 H), 4.09-4.23 (m, 1 H), 4.45 (s, 2 H), 5.96 (d,  $J$  = 7.3 Hz, 1 H), 6.47-6.64 (m, 3 H), 6.75-6.90 (m, 1 H), 7.14-7.25 (m, 1 H), 7.40-7.56 (m, 1 H), 8.62-8.79 (m, 20 1 H), 13.29 (brs, 1 H).

**Example 3395**

**N-[*cis*-4-(4-Dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-C-(ethyl-phenyl-amino)-  
25 acetamide dihydrochloride**

**Step A: Synthesis of N-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-**

**C-(ethyl-phenyl-amino)-acetamide dihydrochloride.**



Using the procedure for the step A of example 3198, the title compound was obtained.

ESI MS  $m/e$  397,  $M$  (free) +  $H^+$ ;  $^1H$  NMR (300 MHz, DMSO- $d_6$ )  $\delta$  1.09 (t,  $J = 7.0$  Hz, 3 H), 1.41-1.87 (m, 8 H), 3.14 (s, 3 H), 3.18 (s, 3 H), 3.43 (q,  $J = 7.0$  Hz, 2 H), 3.60-3.80 (m, 1 H), 3.82-4.01 (m, 3H), 6.36 (d,  $J = 7.5$  Hz, 1 H), 6.57-6.80 (m, 3 H), 7.06-7.28 (m, 2 H), 7.72-8.05 (m, 2 H),  
5 8.20-8.42 (m, 1 H), 12.19 (brs, 1 H).

### Example 3396

#### 5-Chloro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide

10

#### Step A: Synthesis of 5-bromo-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide.

To a solution of *N*-(*cis*-4-methyl-quinolin-2-yl)-cyclohexane-1,4-diamine obtained in step A of example 3070 (5.00 g) in DMF (50 mL) were added 5-bromo-nicotinic acid (4.74 g),  $Et_3N$  (6.55 mL),  
15 HOBT-H $_2$ O (4.50 g), and EDC-HCl (4.51 g). The reaction mixture was stirred at ambient temperature for 16 hr. The reaction mixture was poured into saturated aqueous  $NaHCO_3$  and the aqueous layer was extracted with  $CHCl_3$  (three times). The combined organic layer was dried over  $MgSO_4$ , filtered, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, 20% to 40% EtOAc in hexane) to give 5-bromo-*N*-[*cis*-4-(4-methyl-  
20 quinolin-2-ylamino)-cyclohexyl]-nicotinamide (9.81 g) as a white solid.

ESI MS  $m/e$  439,  $M + H^+$ ;  $^1H$  NMR (300 MHz,  $CDCl_3$ )  $\delta$  1.67-2.84 (m, 8 H), 2.58 (s, 3 H), 4.07-4.24 (m, 2 H), 4.72-4.83 (m, 1 H), 6.11-6.20 (m, 1 H), 6.52 (s, 1 H), 7.20-7.28 (m, 1 H), 7.49-7.81 (m, 3 H), 8.23-8.29 (m, 1 H), 8.79 (d,  $J = 2.3$  Hz, 1 H), 8.86 (d,  $J = 1.9$  Hz, 1 H).

#### 25 Step B: Synthesis of 5-amino-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide.

To the solution of 5-bromo-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide (6.00 g) in EtOH (40 mL) were added copper (2.17 g), cuprous chloride (3.37 g), and

- 28% aqueous  $\text{NH}_3$  (40.0 mL). The mixture was stirred at  $180^\circ\text{C}$  for 4 hr in a sealed tube. The mixture was filtrated through a pad of celite and the aqueous layer was extracted with  $\text{CHCl}_3$  (three times). The combined organic layer was dried over  $\text{MgSO}_4$ , filtered, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (silica gel, 25% to 50% EtOAc in hexane) to
- 5 give 5-amino-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide (3.92 g) as a white solid.
- ESI MS  $m/e$  376,  $\text{M} + \text{H}^+$ ;  $^1\text{H}$  NMR (300 MHz,  $\text{CDCl}_3$ )  $\delta$  1.66-2.04 (m, 8 H), 2.58 (s, 3 H), 3.88-4.24 (m, 4 H), 4.75-4.90 (m, 1 H), 6.18-6.31 (m, 1 H), 6.52 (s, 1 H), 7.19-7.29 (m, 1 H), 7.39-7.44 (m, 1 H), 7.48-7.58 (m, 1 H), 7.62-7.70 (m, 1 H), 7.73-7.80 (m, 1 H), 8.19 (d,  $J = 2.8$  Hz, 1 H), 8.29 (d,  $J$
- 10 = 1.6 Hz, 1 H).

**Step C: Synthesis of 5-chloro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide.**

- A mixture of conc. HCl (1.33 mL) and  $\text{NaNO}_2$  (137.8 mg) was stirred at  $70^\circ\text{C}$  for 10 min and
- 15 cooled to ambient temperature. To the reaction mixture was added a solution of 5-amino-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide (500 mg) in AcOH (45 mL) and the mixture was stirred at ambient temperature for 30 min. To the reaction mixture was added a solution of CuCl (460.8 mg) in conc. HCl (3.0 mL) and the mixture was stirred at  $80^\circ\text{C}$  for 6 hr. The reaction mixture was alkalinized with 1M aqueous NaOH and the aqueous layer was extracted with  $\text{CHCl}_3$  (three times).
- 20 The combined organic layer was dried over  $\text{MgSO}_4$ , filtered, concentrated, and purified by flash chromatography (NH-silica gel, 20% EtOAc in hexane and silica gel, 2% MeOH in  $\text{CHCl}_3$ ) to give 5-chloro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide (52.3 mg) as a yellow solid.
- ESI MS  $m/e$  395,  $\text{M} (\text{free}) + \text{H}^+$ ;  $^1\text{H}$  NMR (300 MHz,  $\text{CDCl}_3$ )  $\delta$  1.65-2.03 (m, 8 H), 2.57 (s, 3 H),
- 25 4.03-4.29 (m, 2 H), 5.05 (brs, 1 H), 6.33-6.44 (m, 1 H), 6.53 (s, 1 H), 7.19-7.28 (m, 1 H), 7.48-7.56 (m, 1 H), 7.61-7.67 (m, 1 H), 7.73-7.79 (m, 1 H), 8.08-8.13 (m, 1 H), 8.66 (d,  $J = 2.3$  Hz, 1 H), 8.83 (d,  $J = 1.9$  Hz, 1 H).

**Example 3397****5-Fluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide**

- 5 **Step A: Synthesis of 5-fluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide.**

To a solution of 5-amino-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide obtained in step B of example 3396 (500 mg) in 48% aqueous HBF<sub>4</sub> (3.95 mL) and EtOH (4.00 mL) was added CuF<sub>2</sub> (132.0 mg) at ambient temperature. To the reaction mixture was  
10 added a solution of NaNO<sub>2</sub> (183.5 mg) in H<sub>2</sub>O (3.95 mL) and the mixture was stirred at ambient temperature for 1 hr. Then the mixture was stirred at 50°C for 2 hr and 80°C for 2 hr. The reaction mixture was alkalinized with 1M aqueous NaOH and the aqueous layer was extracted with EtOAc (three times). The combined organic layer was dried over MgSO<sub>4</sub>, filtered, concentrated, and purified by flash chromatography (NH-silica gel, 50% EtOAc in hexane) to give  
15 5-fluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide (20.9 mg) as a yellow amorphous.

ESI MS *m/e* 379, M (free) + H<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.67-2.05 (m, 8 H), 2.57 (s, 3 H), 4.08-4.25 (m, 2 H), 4.72 (brs, 1 H), 6.17-6.29 (m, 1 H), 6.52 (s, 1 H), 7.19-7.28 (m, 1 H), 7.48-7.57 (m, 1 H), 7.62-7.69 (m, 1 H), 7.73-7.80 (m, 1 H), 7.82-7.91 (m, 1 H), 8.60 (d, *J* = 2.8 Hz, 1 H), 8.76  
20 (t, *J* = 1.5 Hz, 1 H).

**Example 3398**

- 3-chloro-*N*-[*cis*-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-4-fluoro-**  
25 **benzamide methanesulfonic acid**

**Step A: Synthesis of 3-chloro-*N*-[*cis*-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-4-fluoro-benzamide methanesulfonic acid.**

- To a solution of *N*-(*cis*-4-amino-cyclohexyl)-3-chloro-4-fluoro-benzamide obtained in step A of example 3228 (1.76 g) in BuOH (2.5 mL) was added 2-chloro-4-dimethylamino-5-methylpyrimidine obtained in step A of example 3119 (1.00 g). The mixture was heated in a microwave synthesizer at 200°C for 15 min. The reaction was repeated 3 more times and the reaction
- 5 mixtures were pooled. The mixture was poured into saturated aqueous NaHCO<sub>3</sub> and the aqueous layer was extracted with CHCl<sub>3</sub> (three times). The combined organic layer was dried over MgSO<sub>4</sub>, filtrated, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, 15% to 80% EtOAc in hexane) to give a colorless solid. To a solution of the above solid (1.85 g) in EtOH (18 mL) was added MsOH (460 mg). The mixture was stirred at
- 10 ambient temperature for 30 min and stirred on an ice-bath for 4 hr. The precipitate was collected by filtration, washed with EtOH, and dried at 80°C under reduced pressure to give 3-chloro-*N*-(*cis*-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl)-4-fluoro-benzamide methanesulfonic acid (1.41 g) as a white solid.
- ESI MS *m/e* 406, M (free) + H<sup>+</sup>; <sup>1</sup>H NMR (300 MHz, CDCl<sub>3</sub>) δ 1.60-2.03 (m, 8 H), 2.25 (s, 3 H), 2.89
- 15 (s, 3 H), 3.30 (s, 6 H), 4.07-4.30 (m, 2 H), 7.13-7.29 (m, 2 H), 7.38-7.49 (m, 1 H), 7.81-7.89 (m, 1 H), 7.96-8.05 (m, 1 H), 8.07 (dd, *J* = 7.1, 2.3 Hz, 1 H), 12.07-12.23 (m, 1 H).

## Assay Procedures

### Example 3399

#### ASSAY FOR DETERMINATION OF CONSTITUTIVE ACTIVITY OF GPCRS

##### A. Intracellular IP<sub>3</sub> Accumulation Assay

- On day 1, cells to be transfected can be plated onto 24 well plates, usually  $1 \times 10^5$  cells/well (although this number can be optimized). On day 2 cells can be transfected by firstly mixing 0.25  $\mu$ g DNA (e.g., pCMV vector or pCMV vector comprising polynucleotide encoding receptor) in 50  $\mu$ l serum free DMEM/well and 2  $\mu$ l lipofectamine in 50  $\mu$ l serum-free DMEM/well. The solutions are gently mixed and incubated for 15-30 min at room temperature. Cells are washed with 0.5 ml PBS and 400  $\mu$ l of serum free media is mixed with the transfection media and added to the cells. The cells are then incubated for 3-4 hrs at 37°C/5%CO<sub>2</sub> and then the transfection media is removed and replaced with 1ml/well of regular growth media. On day 3 the cells are labeled with <sup>3</sup>H-myo-inositol. Briefly, the media is removed and the cells are washed with 0.5 ml PBS. Then 0.5 ml inositol-free/serum free media (GIBCO BRL) is added/well with 0.25  $\mu$ Ci of <sup>3</sup>H-myo-inositol/ well and the cells are incubated for 16-18 hrs o/n at 37°C/5%CO<sub>2</sub>. On Day 4 the cells are washed with 0.5 ml PBS and 0.45 ml of assay medium is added containing inositol-free/serum free media 10  $\mu$ M pargyline 10 mM lithium chloride or 0.4 ml of assay medium and 50  $\mu$ l of 10x ketanserin (ket) to final concentration of 10  $\mu$ M. The cells are then incubated for 30 min at 37°C. The cells are then washed with 0.5 ml PBS and 200  $\mu$ l of fresh/ice cold stop solution (1M KOH; 18 mM Na-borate; 3.8 mM EDTA) is added/well. The solution is kept on ice for 5-10 min or until cells were lysed and then neutralized by 200  $\mu$ l of fresh/ice cold neutralization sol. (7.5 % HCL). The lysate is then transferred into 1.5 ml eppendorf tubes and 1 ml of chloroform/methanol (1:2) is added/tube. The solution is vortexed for 15 sec and the upper phase is applied to a Biorad AG1-X8™ anion exchange resin (100-200 mesh). Firstly, the resin is washed with water at 1:1.25 W/V and 0.9 ml of upper phase is loaded onto the column. The column is washed with 10 mls of 5 mM myo-inositol and 10 ml of 5 mM Na-borate/60mM Na-formate. The inositol tris phosphates are eluted into scintillation vials containing 10 ml of scintillation cocktail with 2 ml of 0.1 M formic acid/ 1 M ammonium formate. The columns are regenerated by washing with 10 ml of 0.1 M formic acid/3M ammonium formate

and rinsed twice with H<sub>2</sub>O and stored at 4°C in water.

#### Example 3400

##### High Throughput Functional Screening: FLIPR™

5 Subsequently, a functional based assay was used to confirm the lead hits, referred to as FLIPR™ (the Fluorometric Imaging Plate Reader) and FDSS6000™ (Functional Drug Screening System). This assay utilized a non-endogenous, constitutively active version of the MCH receptor.

The FLIPR and FDSS assays are able to detect intracellular Ca<sup>2+</sup> concentration in cells, which can be utilized to assess receptor activation and determine whether a candidate compound is  
10 an, for example, antagonist, inverse agonist or agonist to a Gq-coupled receptor. The concentration of free Ca<sup>2+</sup> in the cytosol of any cell is extremely low, whereas its concentration in the extracellular fluid and endoplasmic reticulum (ER) is very high. Thus, there is a large gradient tending to drive Ca<sup>2+</sup> into the cytosol across both the plasma membrane and ER. The FLIPR™ and FDSS6000™ systems (Molecular Devices Corporation, HAMAMATSU Photonics K.K.) are designed to perform  
15 functional cell-based assays, such as the measurement of intracellular calcium for high-throughput screening. The measurement of fluorescent is associated with calcium release upon activation of the Gq-coupled receptors. Gi or Go coupled receptors are not as easily monitored through the FLIPR™ and FDSS6000™ systems because these G proteins do not couple with calcium signal pathways.

Fluorometric Imaging Plate Reader system was used to allow for rapid, kinetic  
20 measurements of intracellular fluorescence in 96 well microplates (or 384 well microplates). Simultaneous measurements of fluorescence in all wells can be made by FLIPR or FDSS6000™ every second with high sensitivity and precision. These systems are ideal for measuring cell-based functional assays such as monitoring the intracellular calcium fluxes that occur within seconds after activation of the Gq coupled receptor.

25 Briefly, the cells are seeded into 96 well at 5.5x10<sup>4</sup> cells/well with complete culture media (Dulbecco's Modified Eagle Medium with 10 % fetal bovine serum, 2 mM L-glutamine, 1 mM sodium pyruvate and 0.5 mg/ml G418, pH 7.4) for the assay next day. On the day of assay, the media is removed and the cells are incubated with 100 µl of loading buffer (4 µM Fluo4-AM in complete

- culture media containing 2.5 mM Probenicid, 0.5 mg/ml and 0.2% bovine serum albumin) in 5% CO<sub>2</sub> incubator at 37°C for 1 hr. The loading buffer is removed, and the cells are washed with wash buffer (Hank's Balanced Salt Solution containing 2.5 mM Probenicid, 20 mM HEPES, 0.5 mg/ml and 0.2% bovine serum albumin, pH 7.4)). One hundred fifty µl of wash buffer containing various
- 5 concentrations of test compound is added to the cells, and the cells are incubated in 5% CO<sub>2</sub> incubator at 37°C for 30 min. Fifty µl of wash buffer containing various concentration of MCH are added to each well, and transient changes in [Ca<sup>2+</sup>]<sub>i</sub> evoked by MCH are monitored using the FLIPR or FDSS in 96 well plates at Ex. 488 nm and Em. 530 nm for 290 second. When antagonist activity of compound is tested, 50 nM of MCH is used.
- 10 Use of FLIPR™ and FDSS6000™ can be accomplished by following manufacturer's instruction (Molecular Device Corporation and HAMAMATSU Photonics K.K.).

Representative examples are shown below.

Compound No.	IC <sub>50</sub> (nM)
Example 7	11
Example 15	19
Example 19	21
Example 2524	2.1
Example 2526	7.6

15

The results were shown on the tables in the Examples section and the table in the next page in accordance with the classification as defined below.

Class 1 : The value of percent of control at 10<sup>-7</sup> M was less than 40% or the value of IC<sub>50</sub> was less than 50 nM.

20

Class 2 : The value of percent of control at 10<sup>-7</sup> M was from 40% to 60% or the value of IC<sub>50</sub>

was from 50 nM to 200 nM.

Class 3 : The value of percent of control at  $10^{-7}$  M was more than 60% or the value of  $IC_{50}$  was more than 200 nM.

- 5 The compounds in Examples 2497 to 2542, 2588 to 2689, and 3241 to 3259 were tested and they showed  $IC_{50}$  activities less than about 50  $\mu$ M.

Ex. No.	class	Ex. No.	class	Ex. No.	class	Ex. No.	class	Ex. No.	class	Ex. No.	class
1	2	3058	1	3104	2	3150	3	3196	2	3384	1
2	2	3059	1	3105	2	3151	1	3197	2	3385	1
3	1	3060	2	3106	1	3152	1	3198	1	3386	1
4	1	3061	1	3107	1	3153	1	3199	1	3387	1
5	2	3062	1	3108	1	3154	1	3200	3	3388	1
6	2	3063	1	3109	1	3155	3	3201	1	3389	1
7	1	3064	1	3110	1	3156	3	3202	1	3390	1
8	1	3065	1	3111	1	3157	2	3203	1	3391	1
9	3	3066	1	3112	1	3158	1	3204	2	3392	3
10	2	3067	2	3113	3	3159	1	3205	2	3393	1
11	1	3068	2	3114	1	3160	1	3206	1	3394	1
12	2	3069	2	3115	1	3161	2	3207	1	3395	1
13	3	3070	1	3116	3	3162	2	3208	3	3396	1
14	1	3071	1	3117	1	3163	1	3209	3	3397	1
15	1	3072	1	3118	3	3164	2	3210	3	3398	1
16	1	3073	1	3119	1	3165	2	3211	1		
17	2	3074	1	3120	1	3166	1	3212	3		
18	1	3075	1	3121	1	3167	1	3213	3		
19	1	3076	1	3122	1	3168	1	3214	2		



3031	1	3077	1	3123	1	3169	1	3215	2
3032	1	3078	1	3124	1	3170	1	3216	1
3033	1	3079	1	3125	1	3171	2	3217	1
3034	1	3080	1	3126	1	3172	1	3218	3
3035	1	3081	1	3127	1	3173	3	3219	2
3036	1	3082	1	3128	1	3174	1	3220	1
3037	3	3083	1	3129	2	3175	1	3221	1
3038	1	3084	1	3130	3	3176	2	3222	1
3039	1	3085	1	3131	3	3177	2	3223	3
3040	1	3086	1	3132	3	3178	2	3224	2
3041	1	3087	1	3133	3	3179	1	3225	3
3042	1	3088	1	3134	3	3180	1	3226	3
3043	1	3089	1	3135	3	3181	2	3227	3
3044	2	3090	1	3136	3	3182	3	3228	1
3045	1	3091	1	3137	2	3183	3	3229	1
3046	1	3092	1	3138	2	3184	2	3230	1
3047	1	3093	1	3139	2	3185	1	3231	2
3048	1	3094	1	3140	2	3186	2	3232	2
3049	1	3095	1	3141	2	3187	3	3233	3
3050	1	3096	1	3142	3	3188	1	3234	3
3051	1	3097	1	3143	3	3189	1	3235	1
3052	1	3098	1	3144	3	3190	2	3236	3
3053	1	3099	1	3145	3	3191	2	3237	3
3054	1	3100	1	3146	1	3192	1	3238	1
3055	1	3101	1	3147	2	3193	1	3239	1
3056	1	3102	1	3148	3	3194	1	3240	1
3057	1	3103	2	3149	2	3195	2	3383	1

**Example 3401****Receptor Binding Assay**

In addition to the methods described herein, another means for evaluating a test compound is by determining binding affinities to the **MCH** receptor. This type of assay generally requires a radiolabelled ligand to the **MCH** receptor. Absent the use of known ligands for the **MCH** receptor and radiolabels thereof, compounds of Formula (I) can be labelled with a radioisotope and used in an assay for evaluating the affinity of a test compound to the **MCH** receptor.

A radiolabelled **MCH** compound of Formula (I) can be used in a screening assay to identify/evaluate compounds. In general terms, a newly synthesized or identified compound (i.e., test compound) can be evaluated for its ability to reduce binding of the "radiolabelled compound of Formula (I)" to the **MCH** receptor. Accordingly, the ability to compete with the "radio-labelled compound of Formula (I)" or **Radiolabelled MCH Ligand** for the binding to the **MCH** receptor directly correlates to its binding affinity of the test compound to the **MCH** receptor.

**15 ASSAY PROTOCOL FOR DETERMINING RECEPTOR BINDING FOR MCH:****A. MCH RECEPTOR PREPARATION**

293 cells (human kidney, ATCC), transiently transfected with 10 ug human **MCH** receptor and 60 ul Lipofectamine (per 15-cm dish), are grown in the dish for 24 hours (75% confluency) with a media change and removed with 10 ml/dish of Hepes-EDTA buffer (20mM Hepes + 10 mM EDTA, pH 7.4). The cells are then centrifuged in a Beckman Coulter centrifuge for 20 minutes, 17,000 rpm (JA-25.50 rotor). Subsequently, the pellet is resuspended in 20 mM Hepes + 1 mM EDTA, pH 7.4 and homogenized with a 50- ml Dounce homogenizer and again centrifuged. After removing the supernatant, the pellets can be stored at -80°C, until used in binding assay. When used in the assay, membranes are thawed on ice for 20 minutes and then 10 mL of incubation buffer (20 mM Hepes, 1 mM MgCl<sub>2</sub>, 100 mM NaCl, pH 7.4) added. The membranes are then vortexed to resuspend the crude membrane pellet and homogenized with a Brinkmann PT-3100 Polytron homogenizer for 15 seconds at setting 6. The concentration of membrane protein is determined using the BRL Bradford protein assay.

## B. BINDING ASSAY

For total binding, a total volume of 50ul of appropriately diluted membranes (diluted in assay buffer containing 50mM Tris HCl (pH 7.4), 10mM MgCl<sub>2</sub>, and 1mM EDTA; 5-50ug protein) is added to 96-well polypropylene microtiter plates followed by addition of 100ul of assay buffer and 50ul of **Radiolabelled MCH Ligand**. For nonspecific binding, 50 ul of assay buffer is added instead of 100ul and an additional 50ul of 10uM cold **MCH** is added before 50ul of **Radiolabelled MCH Ligand** is added. Plates are then incubated at room temperature for 60-120 minutes. The binding reaction is terminated by filtering assay plates through a Microplate Devices GF/C Unifilter filtration plate with a Brandell 96-well plate harvester followed by washing with cold 50 mM Tris HCl, pH 7.4 containing 0.9% NaCl. Then, the bottom of the filtration plate are sealed, 50 µl of Optiphaser Supremix is added to each well, the top of the plates are sealed, and plates are counted in a Trilux MicroBeta scintillation counter. For compound competition studies, instead of adding 100 µl of assay buffer, 100 µl of appropriately diluted test compound is added to appropriate wells followed by addition of 50 µl of **Radiolabelled MCH Ligand**.

## C. CALCULATIONS

The test compounds are initially assayed at 1 and 0.1 µM and then at a range of concentrations chosen such that the middle dose would cause about 50% inhibition of a **Radiolabelled MCH Ligand** binding (i.e., IC<sub>50</sub>). Specific binding in the absence of test compound (B<sub>0</sub>) is the difference of total binding (B<sub>T</sub>) minus non-specific binding (NSB) and similarly specific binding (in the presence of test compound) (B) is the difference of displacement binding (B<sub>D</sub>) minus non-specific binding (NSB). IC<sub>50</sub> is determined from an inhibition response curve, logit-log plot of % B/B<sub>0</sub> vs concentration of test compound.

K<sub>i</sub> is calculated by the Cheng and Prustoff transformation:

$$K_i = IC_{50} / (1 + [L]/K_D)$$

wherein [L] is the concentration of a **Radiolabelled MCH Ligand** used in the assay and K<sub>D</sub> is the dissociation constant of a **Radiolabelled MCH Ligand** determined independently under the

same binding conditions.

It is intended that each of the patents, applications, printed publications, and other published  
5 documents mentioned or referred to in this specification be herein incorporated by reference in their  
entirety.

Those skilled in the art will appreciate that numerous changes and modifications may be  
made to the preferred embodiments of the invention and that such changes and modifications may be  
made without departing from the spirit of the invention. It is therefore intended that the appended  
10 claims cover all such equivalent variations as fall within the true spirit and scope of the invention.

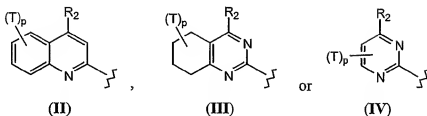
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## CLAIMS

1. A compound of Formula (I):



wherein Q is:



R<sub>1</sub> is selected from the group consisting of:

- (i) C<sub>1-16</sub> alkyl, and  
 C<sub>1-16</sub> alkyl substituted by substituent(s) independently selected from the  
 group consisting of:
- halogen,
  - hydroxy,
  - oxo,
  - C<sub>1-5</sub> alkoxy,
  - C<sub>1-5</sub> alkoxy substituted by substituent(s) independently selected from the  
 group consisting of:
    - carbocyclic aryl,
    - heterocyclyl, and
    - heterocyclyl substituted by C<sub>1-5</sub> alkyl,
  - C<sub>1-5</sub> alkyl/carbonyloxy,

•carbocyclyloxy,

•carbocyclic aryloxy,

•carbocyclic aryloxy substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••hydroxy,

••carboxy,

••carbamoyl,

••nitro,

••cyano,

••amino,

••carbocyclic aryl,

••carbocyclic aryl substituted by C<sub>1-5</sub> alkoxy,

••C<sub>1-5</sub> alkoxy,

••C<sub>1-5</sub> alkoxy substituted by halogen,

••C<sub>1-5</sub> alkyl, and

••C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•••halogen,

•••hydroxy,

•••carboxy,

•••oxo,

•••mono-C<sub>1-5</sub> alkylamino,

•••di-C<sub>1-5</sub> alkylamino,

•••mono-C<sub>1-5</sub> alkylamino substituted by carbocyclic aryl,

•••di-C<sub>1-5</sub> alkylamino substituted by carbocyclic aryl,

•••mono-C<sub>1-5</sub> alkylamino substituted by halogenated carbocyclic aryl,

\*\*\*di-C<sub>1-5</sub> alkylamino substituted by halogenated  
carbocyclic aryl,  
\*\*\*carbocyclic arylcarbonylamino, and  
\*\*\*carbocyclic arylcarbonylamino substituted by halogen,  
\*heterocyclyloxy,  
\*heterocyclyloxy substituted by substituent(s) independently selected from  
the group consisting of:

\*\*halogen,  
\*\*hydroxy,  
\*\*carboxy,  
\*\*carbamoyl,  
\*\*nitro,  
\*\*cyano,  
\*\*amino,  
\*\*carbocyclic aryl,  
\*\*carbocyclic aryl substituted by C<sub>1-5</sub> alkoxy,  
\*\*C<sub>1-5</sub> alkoxy,  
\*\*C<sub>1-5</sub> alkoxy substituted by substituent(s) independently selected  
from the group consisting of:

\*\*\*halogen,  
\*\*\*hydroxy, and  
\*\*\*carboxy,  
\*\*C<sub>1-5</sub> alkyl, and  
\*\*C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected  
from the group consisting of:

\*\*\*halogen,  
\*\*\*hydroxy, and  
\*\*\*carboxy,

- substituted heterocyclcyl-ethylideneaminoxy,
- C<sub>1-5</sub> alkoxy carbonyl,
- C<sub>1-5</sub> alkoxy carbonyl substituted by carbocyclic aryl,
- mono-C<sub>1-5</sub> alkylaminocarbonyl,
- di-C<sub>1-5</sub> alkylaminocarbonyl,
- mono-C<sub>1-5</sub> alkylamino,
- mono-C<sub>1-5</sub> alkylamino substituted by substituent(s) independently selected from the group consisting of:
  - cyano,
  - carbocyclic aryl, and
  - heterocyclcyl,
- di-C<sub>1-5</sub> alkylamino,
- di-C<sub>1-5</sub> alkylamino substituted by substituent(s) independently selected from the group consisting of:
  - cyano,
  - carbocyclic aryl, and
  - heterocyclcyl,
- mono-carbocyclic arylamino,
- mono-carbocyclic arylamino substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - hydroxy,
  - carboxy,
  - carbamoyl,
  - nitro,
  - cyano,
  - amino,
  - carbocyclic aryl,



••carbocyclic aryl substituted by C<sub>1-5</sub> alkoxy,

••C<sub>1-5</sub> alkoxy,

••C<sub>1-5</sub> alkoxy substituted by substituent(s) independently selected from the group consisting of:

•••halogen,

•••hydroxy, and

•••carboxy,

••C<sub>1-5</sub> alkyl, and

••C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•••halogen,

•••hydroxy, and

•••carboxy,

•di-carbocyclic arylamino,

•di-carbocyclic arylamino substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••hydroxy,

••carboxy,

••carbamoyl,

••nitro,

••cyano,

••amino,

••carbocyclic aryl,

••carbocyclic aryl substituted by C<sub>1-5</sub> alkoxy,

••C<sub>1-5</sub> alkoxy,

••C<sub>1-5</sub> alkoxy substituted by substituent(s) independently selected from the group consisting of:

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\*\*\*halogen,

\*\*\*hydroxy, and

\*\*\*carboxy,

\*\*C<sub>1-5</sub> alkyl, and\*\*C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected

from the group consisting of:

\*\*\*halogen,

\*\*\*hydroxy, and

\*\*\*carboxy,

•mono-heterocyclylamino,

•mono-heterocyclylamino substituted by substituent(s) independently

selected from the group consisting of:

\*\*halogen,

\*\*hydroxy,

\*\*carboxy,

\*\*carbamoyl,

\*\*nitro,

\*\*cyano,

\*\*amino,

\*\*carbocyclic aryl,

\*\*carbocyclic aryl substituted by C<sub>1-5</sub> alkoxy,\*\*C<sub>1-5</sub> alkoxy,\*\*C<sub>1-5</sub> alkoxy substituted by substituent(s) independently selected

from the group consisting of:

\*\*\*halogen,

\*\*\*hydroxy, and

\*\*\*carboxy,

\*\*C<sub>1-5</sub> alkyl, and

••C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•••halogen,

•••hydroxy, and

•••carboxy,

•di-heterocyclylamino,

•di-heterocyclylamino substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••hydroxy,

••carboxy,

••carbamoyl,

••nitro,

••cyano,

••amino,

••carbocyclic aryl,

••carbocyclic aryl substituted by C<sub>1-5</sub> alkoxy,

••C<sub>1-5</sub> alkoxy,

••C<sub>1-5</sub> alkoxy substituted by substituent(s) independently selected from the group consisting of:

•••halogen,

•••hydroxy, and

•••carboxy,

••C<sub>1-5</sub> alkyl, and

••C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•••halogen,

•••hydroxy, and

\*\*\*carboxy,

◦C<sub>1-5</sub> alkylcarbonylamino,

◦C<sub>1-5</sub> alkylcarbonylamino substituted by substituent(s) independently  
selected from the group consisting of:

◦◦C<sub>1-5</sub> alkylcarbonylamino,

◦◦carbocyclic arylcarbonylamino, and

\*\*heterocyclyl,

•C<sub>1-5</sub> alkoxy carbonylamino,

•carbocyclic arylcarbonylamino,

•heterocyclyl carbonylamino,

•carbocyclic arylsulfonylamino,

•carbocyclic arylsulfonylamino substituted by substituent(s) independently  
selected from the group consisting of:

\*\*nitro,

\*\*C<sub>1-5</sub> alkyl,

\*\*mono-C<sub>1-5</sub> alkylamino, and

\*\*di-C<sub>1-5</sub> alkylamino,

•C<sub>1-5</sub> alkylthio,

•C<sub>1-5</sub> alkylthio substituted by substituent(s) independently selected from  
the group consisting of:

\*\*mono-carbocyclic arylaminocarbonyl,

\*\*mono-carbocyclic arylaminocarbonyl substituted by halogen,

\*\*di-carbocyclic arylaminocarbonyl,

\*\*di-carbocyclic arylaminocarbonyl substituted by halogen,

◦◦mono-carbocyclic arylamino,

◦◦mono-carbocyclic arylamino substituted by halogen,

\*\*di-carbocyclic arylamino,

\*\*di-carbocyclic arylamino substituted by halogen,

••carbocyclic aryl, and

••carbocyclic aryl substituted by substituent(s) independently

selected from the group consisting of:

•••halogen, and

•••C<sub>1-5</sub> alkoxy,

•carbocyclic arylthio,

•carbocyclic arylthio substituted by substituent(s) independently selected

from the group consisting of:

••halogen,

••C<sub>1-5</sub> alkyl, and

••C<sub>1-5</sub> alkyl substituted by halogen,

•carbocyclic arylsulfinyl,

•carbocyclic arylsulfinyl substituted by substituent(s) independently

selected from the group consisting of:

••halogen,

••C<sub>1-5</sub> alkyl, and

••C<sub>1-5</sub> alkyl substituted by halogen,

•carbocyclic arylsulfonyl,

•carbocyclic arylsulfonyl substituted by substituent(s) independently

selected from the group consisting of:

••halogen,

••C<sub>1-5</sub> alkyl, and

••C<sub>1-5</sub> alkyl substituted by halogen,

•heterocyclylthio,

•heterocyclylthio substituted by substituent(s) independently selected from

the group consisting of:

••nitro, and

••C<sub>1-5</sub> alkyl,

- C<sub>3-6</sub> cycloalkyl,
- C<sub>3-6</sub> cycloalkyl substituted by C<sub>1-5</sub> alkyl,
- C<sub>3-6</sub> cycloalkyl substituted by carbocyclic aryl,
- C<sub>3-6</sub> cycloalkenyl,
- carbocyclyl,
- carbocyclyl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - C<sub>1-5</sub> alkyl,
  - C<sub>1-5</sub> alkoxy,
  - C<sub>2-5</sub> alkenyl, and
  - C<sub>2-5</sub> alkenyl substituted by substituent(s) independently selected from the group consisting of:
    - carbocyclic aryl, and
    - carbocyclic aryl substituted by C<sub>1-5</sub> alkylsulfinyl,
- carbocyclic aryl,
- carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - hydroxy,
  - carboxy,
  - carbamoyl,
  - cyano,
  - nitro,
  - amino,
  - C<sub>1-5</sub> alkylcarbonylamino,
  - C<sub>3-6</sub> cycloalkylcarbonylamino,
  - C<sub>1-5</sub> alkyl,

**\*\*C<sub>1-5</sub>** alkyl substituted by substituent(s) independently selected from the group consisting of:

- \*\*\*halogen,**
- \*\*\*hydroxy,**
- \*\*carboxy,**
- \*\*\*carbamoyl,**
- \*\*oxo,**
- \*\*carbocyclic aryl,**
- \*\*\*heterocyclyl,**
- \*\*\*mono-carbocyclic arylamino,**
- \*\*\*di-carbocyclic arylamino,**
- \*\*\*mono-carbocyclic arylamino substituted by**

substituent(s) independently selected from the group consisting of:

- \*\*\*halogen,**
- \*\*\*nitro,**
- \*\*\*C<sub>1-5</sub> alkyl,**
- \*\*\*C<sub>1-5</sub> alkoxy, and**
- \*\*\*C<sub>1-5</sub> alkoxy substituted by halogen,**

**\*\*\*di-carbocyclic arylamino substituted by substituent(s)** independently selected from the group consisting of:

- \*\*\*halogen,**
- \*\*\*nitro,**
- \*\*\*C<sub>1-5</sub> alkyl,**
- \*\*\*C<sub>1-5</sub> alkoxy, and**
- \*\*\*C<sub>1-5</sub> alkoxy substituted by halogen,**

**\*\*C<sub>2-5</sub>** alkenyl,

**\*\*C<sub>1-5</sub>** alkoxy,

\*\*C<sub>1-5</sub> alkoxy substituted by substituent(s) independently selected from the group consisting of:

\*\*\*halogen, and

\*\*\*carbocyclic aryl,

\*\*carbocyclic aryloxy,

\*\*C<sub>1-5</sub> alkoxycarbonyl,

\*\*C<sub>1-5</sub> alkylcarbonyloxy,

\*\*mono-C<sub>1-5</sub> alkylamino,

\*\*di-C<sub>1-5</sub> alkylamino,

\*\*mono-carbocyclic arylamino,

\*\*mono-carbocyclic arylamino substituted by halogen,

\*\*di-carbocyclic arylamino,

\*\*di-carbocyclic arylamino substituted by halogen,

\*\*mono-carbocyclic arylaminocarbonyl,

\*\*mono-carbocyclic arylaminocarbonyl substituted by substituent(s) selected from the group consisting of:

\*\*\*halogen,

\*\*\*nitro,

\*\*\*C<sub>1-5</sub> alkyl,

\*\*\*C<sub>1-5</sub> alkoxy, and

\*\*\*C<sub>1-5</sub> alkoxy substituted by halogen,

\*\*di-carbocyclic arylaminocarbonyl,

\*\*di-carbocyclic arylaminocarbonyl substituted by substituent(s)

selected from the group consisting of:

\*\*\*halogen,

\*\*\*nitro,

\*\*\*C<sub>1-5</sub> alkyl,

\*\*\*C<sub>1-5</sub> alkoxy, and



- \*\*\*C<sub>1-3</sub> alkoxy substituted by halogen,
- \*\*mercapto,
- °C<sub>1-3</sub> alkylthio,
- °C<sub>1-3</sub> alkylthio substituted by halogen,
- °C<sub>1-5</sub> alkylsulfonyl,
- °C<sub>3-6</sub> cycloalkyl,
- \*\*carbocyclic aryl, and
- \*\*heterocyclyl,
- heterocyclyl, and
- heterocyclyl substituted by substituent(s) independently selected from the group consisting of:
  - \*\*halogen,
  - \*\*hydroxy,
  - \*\*carboxy,
  - \*\*carbamoyl,
  - \*\*cyano,
  - \*\*nitro,
  - \*\*amino,
  - \*\*C<sub>1-5</sub> alkyl,
  - \*\*C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:
    - \*\*halogen,
    - \*\*hydroxy,
    - \*\*\*carboxy, and
    - \*\*\*carbamoyl,
  - °C<sub>1-5</sub> alkyl substituted by carbocyclic aryl,
  - \*\*C<sub>1-5</sub> alkoxy,
  - \*\*C<sub>1-5</sub> alkoxy substituted by halogen,

- C<sub>1-3</sub> alkoxy substituted by carbocyclic aryl,

- °carbocyclic aryl, and

- °carbocyclic aryl substituted by halogen,

(ii) C<sub>2-8</sub> alkenyl, and

C<sub>2-8</sub> alkenyl substituted by substituent(s) independently selected from the group consisting of:

- halogen,

- oxo,

- C<sub>1-5</sub> alkoxy,

- C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,

- carbocyclic aryl,

- carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- halogen,

- hydroxy,

- nitro,

- C<sub>1-5</sub> alkyl,

- C<sub>1-5</sub> alkyl substituted by halogen,

- C<sub>1-5</sub> alkoxy, and

- C<sub>1-5</sub> alkoxy substituted by halogen,

- heterocyclyl, and

- heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- °hydroxy,

- °nitro,

- °C<sub>1-5</sub> alkyl, and

- C<sub>1-5</sub> alkoxy,

(iii) C<sub>2-5</sub> alkynyl, and

C<sub>2-5</sub> alkynyl substituted by carbocyclic aryl,

(iv) C<sub>3-12</sub> cycloalkyl, and

C<sub>3-12</sub> cycloalkyl substituted by substituent(s) independently selected from the group consisting of:

•C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•hydroxy,

•oxo, and

•carbocyclic aryl,

•mono-C<sub>1-5</sub> alkylamino,

•mono-C<sub>1-5</sub> alkylamino substituted by carbocyclic aryl,

•di-C<sub>1-5</sub> alkylamino,

•di-C<sub>1-5</sub> alkylamino substituted by carbocyclic aryl,

•carbocyclic arylcarbonylamino,

•carbocyclic aryl, and

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•C<sub>1-5</sub> alkoxy,

•C<sub>1-5</sub> alkyl, and

•C<sub>1-5</sub> alkyl substituted by halogen,

(v) C<sub>3-6</sub> cycloalkenyl, and

C<sub>3-6</sub> cycloalkenyl substituted by C<sub>1-5</sub> alkyl,

(vi) carbocyclyl, and

carbocyclyl substituted by substituent(s) independently selected from the group consisting of:

•hydroxy, and

- nitro,
- (vii) carbocyclic aryl, and
- carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
- halogen,
  - hydroxy,
  - cyano,
  - nitro,
  - C<sub>1-10</sub> alkyl,
  - C<sub>1-10</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:
    - halogen,
    - hydroxy,
    - carboxy,
    - carbamoyl,
    - oxo,
    - C<sub>1-5</sub> alkoxy,
    - carbocyclic aryloxy,
    - mono-C<sub>1-5</sub> alkylamino-N-oxy,
    - di-C<sub>1-5</sub> alkylamino-N-oxy,
    - mono-C<sub>1-5</sub> alkylamino,
    - di-C<sub>1-5</sub> alkylamino,
    - mono-C<sub>1-5</sub> alkylamino substituted by carbocyclic aryl,
    - di-C<sub>1-5</sub> alkylamino substituted by carbocyclic aryl,
    - mono-carbocyclic arylamino,
    - di-carbocyclic arylamino,
    - carbocyclimino,
    - carbocyclimino substituted by carbocyclic aryl,

- mono-carbocyclic arylamino,
- di-carbocyclic arylamino,
- mono-carbocyclic arylamino substituted by C<sub>1-5</sub> alkoxy,
- di-carbocyclic arylamino substituted by C<sub>1-5</sub> alkoxy,
- mono-carbocyclic arylaminocarbonyl,
- di-carbocyclic arylaminocarbonyl,
- mono-carbocyclic arylaminocarbonyl substituted by C<sub>1-5</sub> alkoxy,
- di-carbocyclic arylaminocarbonyl substituted by C<sub>1-5</sub> alkoxy,
- carbocyclic aryl,
- carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - C<sub>1-5</sub> alkyl, and
  - C<sub>1-5</sub> alkyl substituted by halogen,
- heterocyclyl, and
- heterocyclyl substituted by C<sub>1-5</sub> alkyl,
- C<sub>2-5</sub> alkenyl,
- C<sub>2-5</sub> alkenyl substituted by carbocyclic aryl,
- C<sub>1-9</sub> alkoxy,
- C<sub>1-9</sub> alkoxy substituted by substituent(s) independently selected from the group consisting of:
  - hydroxy,
  - halogen,
  - carboxy,
  - mono-C<sub>1-5</sub> alkylamino,
  - di-C<sub>1-5</sub> alkylamino,
  - carbocyclic aryl,
  - halogenated carbocyclic aryl,

••heterocyclyl,

••heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

•••halogen,

•••heterocyclyl, and

•••heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

••••halogen,

••••C<sub>1-5</sub> alkyl, and

••••C<sub>1-5</sub> alkyl substituted by halogen,

•C<sub>2-5</sub> alkenyloxy,

•C<sub>3-6</sub> cycloalkoxy,

•C<sub>1-5</sub> alkylcarbonyloxy,

•carbocyclic aryloxy,

•carbocyclic aryloxy substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••hydroxy,

••carboxy,

••carbamoyl,

••cyano,

••nitro,

••amino,

••C<sub>1-5</sub> alkyl,

••C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•••halogen,

•••hydroxy,

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- \*\*\*carboxy, and
- \*\*carbamoyl,
- °C<sub>1-5</sub> alkoxy, and
- °C<sub>1-5</sub> alkoxy substituted by halogen,
- °heterocyclyloxy,
- °heterocyclyloxy substituted by substituent(s) independently selected from the group consisting of:
  - \*\*halogen,
  - \*\*hydroxy,
  - \*\*carboxy,
  - \*\*carbamoyl,
  - \*\*cyano,
  - \*\*nitro,
  - \*\*amino,
  - \*\*C<sub>1-5</sub> alkyl,
  - \*\*C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:
    - \*\*\*halogen,
    - \*\*\*hydroxy,
    - \*\*\*carboxy, and
    - \*\*\*carbamoyl,
  - \*\*C<sub>1-5</sub> alkoxy, and
  - \*\*C<sub>1-5</sub> alkoxy substituted by halogen,
- °(carbocyclic aryl)S(O)<sub>2</sub>O,
- °carboxy,
- °carbamoyl,
- °C<sub>1-5</sub> alkoxycarbonyl,
- °mono-C<sub>1-5</sub> alkylaminocarbonyl,

- di-C<sub>1-5</sub> alkylaminocarbonyl,
- mono-C<sub>1-5</sub> alkylaminocarbonyl substituted by carbocyclic aryl,
- di-C<sub>1-5</sub> alkylaminocarbonyl substituted by carbocyclic aryl,
- mono-carbocyclic arylaminocarbonyl,
- di-carbocyclic arylaminocarbonyl,
- mono-carbocyclic arylaminocarbonyl substituted by C<sub>1-5</sub> alkyl,
- di-carbocyclic arylaminocarbonyl substituted by C<sub>1-5</sub> alkyl,
- amino,
- mono-C<sub>1-5</sub> alkylamino,
- di-C<sub>1-5</sub> alkylamino,
- mono-C<sub>1-5</sub> alkylamino substituted by cyano,
- di-C<sub>1-5</sub> alkylamino substituted by cyano,
- mono-carbocyclic arylamino,
- di-carbocyclic arylamino,
- C<sub>1-5</sub> alkylcarbonylamino,
- C<sub>3-6</sub> cycloalkylcarbonylamino,
- C<sub>2-5</sub> alkynylcarbonylamino,
- C<sub>2-5</sub> alkynylcarbonylamino substituted by carbocyclic aryl,
- C<sub>1-5</sub> alkoxycarbonylamino,
- carbocyclic arylsulfonylamino,
- carbocyclic arylsulfonylamino substituted by C<sub>1-5</sub> alkyl,
- (carbocyclic aryl)NHC(O)NH<sub>2</sub>,
- (carbocyclic aryl)NHC(O)NH substituted by C<sub>1-5</sub> alkoxy,
- (carbocyclic aryl)NHC(O)NH substituted by halogenated C<sub>1-5</sub> alkoxy,
- carbocyclic aryl azo,
- carbocyclic aryl azo substituted by mono-C<sub>1-5</sub> alkylamino,
- carbocyclic aryl azo substituted by di-C<sub>1-5</sub> alkylamino,
- C<sub>1-5</sub> alkylthio,



•C<sub>1-5</sub> alkylthio substituted by halogen,  
•carbocyclic arylthio,  
•carbocyclic arylthio substituted by substituent(s) independently selected from the group consisting of:

- halogen,
- nitro,
- cyano, and
- C<sub>1-5</sub> alkyl,

•aminosulfonyl,  
•heterocyclylthio,  
•C<sub>1-5</sub> alkylsulfonyl,  
•mono-C<sub>1-5</sub> alkylaminosulfonyl,  
•di-C<sub>1-5</sub> alkylaminosulfonyl,  
•heterocyclylsulfonyl,  
•C<sub>3-6</sub> cycloalkyl,  
•C<sub>3-6</sub> cycloalkyl substituted by C<sub>1-5</sub> alkyl,  
•carbocyclic aryl,  
•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- C<sub>1-7</sub> alkyl, and
- C<sub>1-7</sub> alkyl substituted by halogen,

•heterocyclyl, and  
•heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- C<sub>1-5</sub> alkyl,
- carbocyclic aryl, and
- halogenated carbocyclic aryl,

•C<sub>1-5</sub> alkoxy carbonyl substituted by carbocyclic aryl, and

(viii) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•hydroxy,

•carboxy,

•carbamoyl,

•cyano,

•nitro,

•amino,

•C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••hydroxy,

••carboxy,

••carbamoyl,

••oxo,

••C<sub>1-5</sub> alkylcarbonyloxy,

••carbocyclic arylcarbonylamino,

••carbocyclic arylcarbonylamino substituted by halogen,

••C<sub>1-5</sub> alkoxycarbonyl,

••C<sub>1-5</sub> alkylthio,

••C<sub>1-5</sub> alkylthio substituted by carbocyclic aryl,

••C<sub>1-5</sub> alkylthio substituted by halogenated carbocyclic aryl,

••carbocyclic aryl,

••carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

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\*\*\*halogen, and

\*\*\*nitro,

\*\*\*heterocyclyl, and

\*\*\*heterocyclyl substituted by substituent(s) independently selected  
from the group consisting of:

\*\*\*halogen,

\*\*\*C<sub>1-5</sub> alkyl, and\*\*\*C<sub>1-5</sub> alkyl substituted by halogen,\*C<sub>1-5</sub> alkoxy,\*C<sub>1-5</sub> alkoxy substituted by halogen,\*C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,

\*carbocyclic aryloxy,

\*carbocyclic aryloxy substituted by substituent(s) independently selected  
from the group consisting of:

\*\*halogen,

\*\*nitro,

\*\*cyano,

\*\*hydroxy,

\*\*carboxy,

\*\*carbamoyl,

\*\*amino,

\*\*C<sub>1-5</sub> alkyl,

\*\*C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected  
from the group consisting of:

\*\*\*halogen,

\*\*\*hydroxy,

\*\*\*carboxy, and

\*\*\*carbamoyl,

- mono-C<sub>1-5</sub> alkylamino,
- di-C<sub>1-5</sub> alkylamino,
- C<sub>1-5</sub> alkylcarbonylamino,
- C<sub>3-6</sub> cycloalkylcarbonylamino,
- C<sub>1-5</sub> alkoxy,
- C<sub>1-5</sub> alkoxy substituted by halogen,
- C<sub>3-6</sub> cycloalkyl,
- C<sub>2-5</sub> alkenyl,
- C<sub>2-5</sub> alkynyl,
- carboxy,
- C<sub>1-5</sub> alkoxycarbonyl,
- mono-C<sub>1-5</sub> alkylaminocarbonyl,
- di-C<sub>1-5</sub> alkylaminocarbonyl,
- mono-C<sub>3-6</sub> cycloalkylaminocarbonyl,
- di-C<sub>3-6</sub> cycloalkylaminocarbonyl,
- mono-C<sub>1-5</sub> alkylaminocarbonylamino,
- di-C<sub>1-5</sub> alkylaminocarbonylamino,
- mono-C<sub>3-6</sub> cycloalkylaminocarbonylamino,
- di-C<sub>3-6</sub> cycloalkylaminocarbonylamino,
- C<sub>1-5</sub> alkylthio,
- C<sub>1-5</sub> alkylthio substituted by halogen,
- C<sub>1-5</sub> alkylsulfinyl,
- C<sub>1-5</sub> alkylsulfinyl substituted by halogen,
- C<sub>1-5</sub> alkylsulfonyl, and
- C<sub>1-5</sub> alkylsulfonyl substituted by halogen,
- heterocycloxy,
- heterocycloxy substituted by substituent(s) independently selected from the group consisting of:

- halogen,
- nitro,
- hydroxy,
- carboxy,
- carbamoyl,
- cyano,
- amino,
- C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - hydroxy,
  - carboxy, and
  - carbamoyl,
- C<sub>1-5</sub> alkoxy, and
- C<sub>1-5</sub> alkoxy substituted by halogen,
- mono-C<sub>1-5</sub> alkylamino,
- di-C<sub>1-5</sub> alkylamino,
- mono-carbocyclic arylamino,
- mono-carbocyclic arylamino substituted by halogen,
- C<sub>1-5</sub> alkylcarbonylamino,
- C<sub>1-5</sub> alkylthio,
- C<sub>2-5</sub> alkenylthio,
- carbocyclic arylthio,
- carbocyclic arylthio substituted by halogen,
- carbocyclic arylthio substituted by C<sub>1-5</sub> alkoxy carbonyl,
- heterocyclylthio,
- heterocyclylthio substituted by C<sub>1-5</sub> alkyl,

- C<sub>1-5</sub> alkylsulfinyl,
- C<sub>1-5</sub> alkylsulfonyl,
- °carbocyclic arylsulfinyl,
- °carbocyclic arylsulfinyl substituted by halogen,
- °carbocyclic arylsulfonyl,
- °carbocyclic arylsulfonyl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - C<sub>1-5</sub> alkoxy,
  - C<sub>1-5</sub> alkyl, and
  - C<sub>1-5</sub> alkyl substituted by halogen,
- C<sub>1-5</sub> alkoxycarbonyl,
- C<sub>1-5</sub> alkoxycarbonyl substituted by carbocyclic aryl,
- carbocyclic aryl,
- carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - nitro,
  - C<sub>1-5</sub> alkyl,
  - C<sub>1-5</sub> alkyl substituted by halogen,
  - C<sub>1-5</sub> alkoxy, and
  - C<sub>1-5</sub> alkoxy substituted by halogen,
- heterocyclyl, and
- heterocyclyl substituted by substituent(s) independently selected from the group consisting of:
  - °•halogen,
  - C<sub>1-5</sub> alkyl,
  - C<sub>1-5</sub> alkyl substituted by halogen,

••C<sub>1-5</sub> alkoxy, and

•°C<sub>1-5</sub> alkoxycarbonyl;

R<sub>2</sub> is selected from the group consisting of:

hydrogen, halogen, hydroxy, carboxy, carbamoyl, amino, C<sub>1-5</sub> alkyl, C<sub>1-5</sub> alkyl substituted by halogen, C<sub>1-5</sub> alkyl substituted by hydroxy, C<sub>1-5</sub> alkyl substituted by carboxy, C<sub>1-5</sub> alkyl substituted by carbamoyl, C<sub>1-5</sub> alkoxy, C<sub>1-5</sub> alkoxy substituted by halogen, -NHNH<sub>2</sub>, -NHNHBoc, -N(R<sub>2a</sub>)(R<sub>2b</sub>), morpholino, 4-acetyl-piperazyl, or 4-phenyl-piperazyl, wherein R<sub>2a</sub> is hydrogen or C<sub>1-5</sub> alkyl and R<sub>2b</sub> is C<sub>1-5</sub> alkyl, C<sub>3-6</sub> cycloalkyl, or C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•hydroxy,

•carboxy,

•carbamoyl,

•C<sub>1-5</sub> alkoxy,

•amino,

•-NHBoc,

•C<sub>3-6</sub> cycloalkyl,

•carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••C<sub>1-5</sub> alkyl,

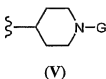
•°C<sub>1-5</sub> alkoxy, and

••-SO<sub>2</sub>NH<sub>2</sub>,

•heterocyclyl, and

C<sub>3-6</sub> cycloalkyl, carbocyclic aryl, carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- halogen,
- C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkoxy, and
- a group of Formula (V):



wherein Boc is carbamic acid *tert*-butyl ester and G is C<sub>1-5</sub> alkyl or C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

- carbocyclic aryl,
- halogenated carbocyclic aryl, and
- carbocyclic aryl substituted by C<sub>1-5</sub> alkoxy;

or R<sub>2</sub> is methylamino or dimethylamino when Q is Formula (II) and Y is a single bond or -CH<sub>2</sub>-;

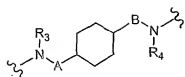
Each T is independently selected from the group consisting of halogen, hydroxy, carboxy, carbamoyl, amino, cyano, nitro, C<sub>1-5</sub> alkyl, C<sub>1-5</sub> alkyl substituted by halogen, C<sub>1-5</sub> alkyl substituted by hydroxy, C<sub>1-5</sub> alkyl substituted by carboxy, C<sub>1-5</sub> alkyl substituted by carbamoyl, C<sub>2-5</sub> alkenyl, C<sub>2-5</sub> alkynyl, C<sub>3-6</sub> cycloalkyl, C<sub>1-5</sub> alkoxy, C<sub>1-5</sub> alkoxy substituted by halogen, carbocyclic aryl, heterocyclyl, and -N(R<sub>2a</sub>)(R<sub>2b</sub>);

p is 0, 1, 2, 3, 4 or 5;

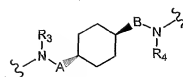
L is selected from the group consisting of Formulae (VI) to (XXI):



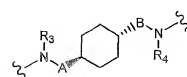
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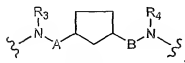
(VI)



(VII)



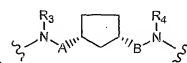
(VIII)



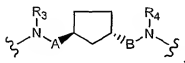
(IX)



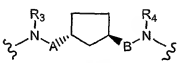
(X)



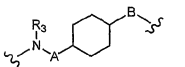
(XI)



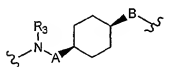
(XII)



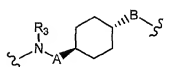
(XIII)



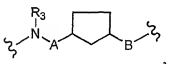
(XIV)



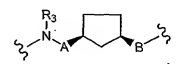
(XV)



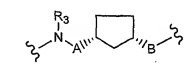
(XVI)



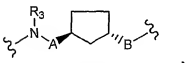
(XVII)



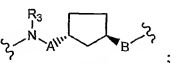
(XVIII)



(XIX)



(XX)



(XXI)

wherein  $R_3$  and  $R_4$  are independently hydrogen or  $C_{1-5}$  alkyl; and A and B are independently a single bond,  $-CH_2-$ , or  $-(CH_2)_2-$ ;

and

Y represents:

- (i)  $-C(O)NR_5$ -,  $-C(S)NR_5$ -,  $-C(O)O$ -,  $-S(O)_2$ -,  $-C(O)$ -,  $-C(S)$ -, a single bond, or  $-CH_2$ - when L is selected from the group consisting of Formulae (VI) to (XIII); or
- (ii)  $-C(O)NR_5$ -,  $-C(S)NR_5$ -,  $-C(O)O$ - or  $-OC(O)$ - when L is selected from the group consisting of Formulae (XIV) to (XXI);

wherein  $R_5$  is hydrogen or  $C_{1-5}$  alkyl, or when Y is  $-C(O)NR_5$  then  $R_5$  and  $R_1$  together with the nitrogen they are bonded form a heterocyclcyl group;

wherein carbocyclic aryl is phenyl, naphthyl, anthranyl, phenanthryl, or biphenyl;

carbocyclcyl is 10,11-dihydro-5-oxo-dibenzo[a,d]cycloheptyl, 1-oxo-indanyl, 7,7-dimethyl-2-oxo-bicyclo[2.2.1]heptyl, 9H-fluorenyl, 9-oxo-fluorenyl, acenaphthyl, anthraquinonyl, C-fluoren-9-ylidene, indanyl, indenyl, 1,2,3,4-tetrahydro-naphthyl, or bicyclo[2.2.1]heptenyl;

heterocyclcyl is 1,2,3,4-tetrahydro-isoquinolyl, 1,2,3-thiadiazolyl, 1,2,3-triazolyl, 1,2-dihydro-3-oxo-pyrazolyl, 1,3,4-thiadiazolyl, 1,3-dioxo-isoidolyl, 1,3-dioxolanyl, 1H-indolyl, 1H-pyrrolo[2,3-c]pyridyl, 1H-pyrrolyl, 1-oxo-3H-isobenzofuranyl, 2,2',5',2"-terthiophenyl, 2,2'-bithiophenyl, 2,3-dihydro-1-oxo-isoidolyl, 2,3-dihydro-benzo[1,4]dioxinyl, 2,3-dihydro-benzofuryl, 2,4-dihydro-3-oxo-pyrazolyl, 2H-benzopyranyl, 2-oxo-benzopyranyl, 2-oxo-pyrrolidinyl, 3,4-dihydro-2H-benzo[1,4]oxazinyl, 3,4-dihydro-2H-benzo[b][1,4]dioxepinyl, 4H-benzo[1,3]dioxinyl, 4H-benzopyranyl, 4-oxo-1,5,6,7-tetrahydro-indolyl, 4-oxo-3,4-dihydro-phthalazinyl, 4-oxo-benzopyranyl, 9,10,10-trioxo-thioxanthenyl, 9H-carbazolyl, 9H-xanthenyl, azetidiny, benzimidazolyl, benzo[1,3]dioxolyl, benzo[2,1,3]oxadiazolyl, benzo[1,2,5]oxadiazolyl, benzo[b]thienyl, benzofuryl, benzothiazolyl, cinnolyl, furyl, imidazo[2,1-b]thiazolyl, imidazolyl, isoxazolyl, morpholino, morpholinyl, oxazolyl, oxolanyl, piperazyl, piperidyl, piridyl,

pyrazolo[5,1-b]thiazolyl, pyrazolyl, pyrazinyl, pyridyl, pyrimidyl, pyrrolidyl, quinolyl, quinoxalyl, thiazolidyl, thiazolyl, thienyl, thiolanyl, 2,3-dihydro-benzofuryl, tetrahydro-thienyl, or benzofuranyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

2. The compound according to claim 1 wherein R<sub>1</sub> is selected from the group consisting of:

(i) C<sub>1-8</sub> alkyl, and

C<sub>1-8</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•oxo,

•C<sub>1-5</sub> alkoxy,

•C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,

•C<sub>1-5</sub> alkylcarbonyloxy,

•carbocyclic aryloxy,

•carbocyclic aryloxy substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••nitro,

••C<sub>1-5</sub> alkyl, and

••C<sub>1-5</sub> alkoxy,

•heterocyclyloxy,

•heterocyclyloxy substituted by C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkoxycarbonyl,

•mono-C<sub>1-5</sub> alkylaminocarbonyl,

•di-C<sub>1-5</sub> alkylaminocarbonyl,

•mono-C<sub>1-5</sub> alkylamino,

- mono-C<sub>1-5</sub> alkylamino substituted by cyano,
- mono-C<sub>1-5</sub> alkylamino substituted by carbocyclic aryl,
- di-C<sub>1-5</sub> alkylamino,
- di-C<sub>1-5</sub> alkylamino substituted by cyano,
- di-C<sub>1-5</sub> alkylamino substituted by carbocyclic aryl,
- mono-carbocyclic arylamino,
- mono-carbocyclic arylamino substituted by halogen,
- mono-carbocyclic arylamino substituted by C<sub>1-5</sub> alkyl,
- di-carbocyclic arylamino,
- di-carbocyclic arylamino substituted by halogen,
- di-carbocyclic arylamino substituted by C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkoxycarbonylamino,
- carbocyclic arylcarbonylamino,
- carbocyclic arylsulfonylamino,
- carbocyclic arylsulfonylamino substituted C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkylthio,
- C<sub>1-5</sub> alkylthio substituted by substituent(s) independently selected from the group consisting of:
  - carbocyclic aryl,
  - carbocyclic aryl substituted by halogen, and
  - carbocyclic aryl substituted by C<sub>1-5</sub> alkoxy,
- carbocyclic arylthio,
- heterocyclylthio,
- heterocyclylthio substituted by nitro,
- heterocyclylthio substituted by C<sub>1-5</sub> alkyl,
- C<sub>3-6</sub> cycloalkyl,
- C<sub>3-6</sub> cycloalkenyl,
- carbocyclyl,

•carbocyclyl substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••C<sub>1-5</sub> alkyl,

••C<sub>1-5</sub> alkoxy,

••C<sub>2-5</sub> alkenyl, and

••C<sub>2-5</sub> alkenyl substituted by substituent(s) independently selected from the group consisting of:

•••carbocyclic aryl, and

•••carbocyclic aryl substituted by C<sub>1-5</sub> alkylsulfinyl,

•carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••hydroxy,

••nitro,

••C<sub>1-5</sub> alkyl,

••C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•••oxo,

•••carbocyclic aryl, and

•••heterocyclyl,

••C<sub>2-5</sub> alkenyl,

••C<sub>1-5</sub> alkoxy,

••C<sub>1-5</sub> alkoxy substituted by halogen,

••C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,

••carbocyclic aryloxy,

••mono-carbocyclic arylaminocarbonyl,

- mono-carbocyclic arylaminocarbonyl substituted by halogen,
- °di-carbocyclic arylaminocarbonyl,
- °di-carbocyclic arylaminocarbonyl substituted by halogen,
- °carbocyclic aryl, and
- heterocyclyl,

•°heterocyclyl, and

•°heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkyl substituted by carbocyclic aryl,
- C<sub>1-5</sub> alkoxy,
- C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,
- carbocyclic aryl, and
- carbocyclic aryl substituted by halogen,

(ii) C<sub>2-7</sub> alkenyl, and

C<sub>2-7</sub> alkenyl substituted by substituent(s) independently selected from the group consisting of:

- carbocyclic aryl,
- carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
- halogen,
- nitro, and
- C<sub>1-5</sub> alkoxy,

(iii) C<sub>2-5</sub> alkynyl, and

C<sub>2-5</sub> alkynyl substituted by carbocyclic aryl,

(iv) C<sub>3-12</sub> cycloalkyl, and

C<sub>3-12</sub> cycloalkyl substituted by substituent(s) independently selected from the group consisting of:

- C<sub>1-5</sub> alkyl,

- C<sub>1-5</sub> alkyl substituted by oxo,

- C<sub>1-5</sub> alkyl substituted by carbocyclic aryl, and

- carbocyclic aryl,

(v) carbocyclyl,

(vi) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- halogen,

- hydroxy,

- cyano,

- nitro,

- carboxy,

- carbamoyl,

- C<sub>1-10</sub> alkyl,

- C<sub>1-10</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

- halogen,

- hydroxy,

- oxo,

- carbocyclic aryloxy,

- carbocyclic aryl, and

- carbocyclic aryl substituted by C<sub>1-5</sub> alkyl,

- C<sub>1-7</sub> alkoxy,

- C<sub>1-7</sub> alkoxy substituted by substituent(s) independently selected from the group consisting of:

- halogen,

- carbocyclic aryl, and

- halogenated carbocyclic aryl,
- C<sub>2-5</sub> alkenyloxy,
- C<sub>3-6</sub> cycloalkoxy,
- carbocyclic aryloxy,
- carbocyclic aryloxy substituted by nitro,
- carbocyclic aryloxy substituted by C<sub>1-5</sub> alkoxy,
- C<sub>1-5</sub> alkoxycarbonyl,
- mono-C<sub>1-5</sub> alkylaminocarbonyl,
- di-C<sub>1-5</sub> alkylaminocarbonyl,
- mono-C<sub>1-5</sub> alkylaminocarbonyl substituted by carbocyclic aryl,
- di-C<sub>1-5</sub> alkylaminocarbonyl substituted by carbocyclic aryl,
- amino,
- mono-C<sub>1-5</sub> alkylamino,
- di-C<sub>1-5</sub> alkylamino,
- mono-C<sub>1-5</sub> alkylamino substituted by cyano,
- di-C<sub>1-5</sub> alkylamino substituted by cyano,
- C<sub>2-5</sub> alkynylcarbonylamino,
- C<sub>2-5</sub> alkynylcarbonylamino substituted by carbocyclic aryl,
- C<sub>1-5</sub> alkoxycarbonylamino,
- (carbocyclic aryl)NHC(O)NH,
- (carbocyclic aryl)NHC(O)NH substituted by C<sub>1-5</sub> alkoxy,
- (carbocyclic aryl)NHC(O)NH substituted by halogenated C<sub>1-5</sub> alkoxy,
- carbocyclic aryl azo,
- carbocyclic aryl azo substituted by mono-C<sub>1-5</sub> alkylamino,
- carbocyclic aryl azo substituted by di-C<sub>1-5</sub> alkylamino,
- C<sub>1-5</sub> alkylthio,
- C<sub>1-5</sub> alkylthio substituted by halogen,
- carbocyclic arylthio,



- carbocyclic arylthio substituted by nitro,
- carbocyclic arylthio substituted by cyano,
- aminosulfonyl,
- mono-C<sub>1-5</sub> alkylaminosulfonyl,
- di-C<sub>1-5</sub> alkylaminosulfonyl,
- heterocyclylsulfonyl,
- C<sub>3-6</sub> cycloalkyl,
- C<sub>3-6</sub> cycloalkyl substituted by C<sub>1-5</sub> alkyl,
- carbocyclic aryl,
- heterocyclyl, and
- heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- C<sub>1-5</sub> alkyl,
- carbocyclic aryl, and
- halogenated carbocyclic aryl,

(vii) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- halogen,
- nitro,
- amino,
- hydroxy,
- C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

- halogen,
- hydroxy,
- C<sub>1-5</sub> alkylthio,

- C<sub>1-5</sub> alkylthio substituted by carbocyclic aryl,
- C<sub>1-5</sub> alkylthio substituted by halogenated carbocyclic aryl,
- carbocyclic aryl,
- carbocyclic aryl substituted by halogen, and
- heterocyclyl,
- C<sub>1-5</sub> alkoxy,
- carbocyclic aryloxy,
- carbocyclic aryloxy substituted by halogen,
- carbocyclic aryloxy substituted by C<sub>1-5</sub> alkyl,
- carbocyclic aryloxy substituted by C<sub>1-5</sub> alkoxy,
- mono-C<sub>1-5</sub> alkylamino,
- di-C<sub>1-5</sub> alkylamino,
- C<sub>1-5</sub> alkylthio,
- C<sub>2-5</sub> alkenylthio,
- carbocyclic arylthio,
- carbocyclic arylthio substituted by C<sub>1-5</sub> alkoxycarbonyl,
- C<sub>1-5</sub> alkylsulfonyl,
- carbocyclic arylsulfonyl,
- carbocyclic arylsulfonyl substituted by C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkoxycarbonyl,
- C<sub>1-5</sub> alkoxycarbonyl substituted by carbocyclic aryl,
- carbocyclic aryl,
- carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - nitro,
  - C<sub>1-5</sub> alkyl, and
  - C<sub>1-5</sub> alkyl substituted by halogen,

•heterocyclyl;

wherein carbocyclic aryl is phenyl, naphthyl, or anthranyl;

carbocyclyl is 1,2,3,4-tetrahydronaphthyl, 1-oxo-indanyl, 9-fluorenyl, 9H-fluorenyl, 9-oxo-9H-fluorenyl, adamantly, bicyclo[2.2.1]heptenyl, bicyclo[2.2.1]heptyl, indanyl, indenyl, or menthyl;

heterocyclyl is 1,2,3-triazolyl, 1H-indolyl, 1H-pyrrolyl, 2,3-dihydro-1-oxo-isindolyl, 2,3-dihydro-benzo[1,4]dioxinyl, 2,3-dihydro-benzofuryl, 2,4-dihydro-3-oxo-pyrazolyl, 2H-benzopyranlyl, 2-oxo-benzopyranlyl, 3,4-dihydro-2H-benzo[b][1,4]dioxepinyl, 4,5,6,7-tetrahydro-benzo[b]thienyl, 4H-benzo[1,3]dioxinyl, 4-oxo-1,5,6,7-tetrahydro-indolyl, 4-oxo-benzopyranlyl, 9H-carbazolyl, 9H-xanthenyl, azetidiny, benzo[1,3]dioxolyl, benzo[2,1,3]oxadiazolyl, benzo[1,2,5]oxadiazolyl, benzo[2,1,3]thiadiazolyl, benzo[b]thienyl, benzofuryl, benzothiazolyl, furyl, imidazo[2,1-b]thiazolyl, imidazolyl, isoxazolyl, morpholino, morpholinyl, oxazolyl, phenanthro[9,10-d]oxazolyl, piperidyl, pyrazolyl, pyridyl, pyrimidyl, quinolyl, quinoxalyl, tetrahydrofuryl, thiazolyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

3. The compound according to claim 2 wherein Q is Formula (II);

R<sub>1</sub> is selected from the group consisting of:

- (i) C<sub>1-8</sub> alkyl, and

C<sub>1-8</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•oxo,

•C<sub>1-3</sub> alkoxy,

•C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,

•C<sub>1-5</sub> alkylcarbonyloxy,

- carbocyclic aryloxy,
- carbocyclic aryloxy substituted by halogen,
- carbocyclic aryloxy substituted by nitro,
- heterocyclyloxy,
- heterocyclyloxy substituted by C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkoxy carbonyl,
- mono-C<sub>1-5</sub> alkylaminocarbonyl,
- di-C<sub>1-5</sub> alkylaminocarbonyl,
- mono-C<sub>1-5</sub> alkylamino,
- mono-C<sub>1-5</sub> alkylamino substituted by cyano,
- mono-C<sub>1-5</sub> alkylamino substituted by carbocyclic aryl,
- di-C<sub>1-5</sub> alkylamino,
- di-C<sub>1-5</sub> alkylamino substituted by cyano,
- di-C<sub>1-5</sub> alkylamino substituted by carbocyclic aryl,
- mono-carbocyclic arylamino,
- di-carbocyclic arylamino,
- C<sub>1-5</sub> alkoxy carbonylamino,
- carbocyclic arylcarbonylamino,
- carbocyclic arylsulfonylamino,
- carbocyclic arylsulfonylamino substituted C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkylthio,
- C<sub>1-5</sub> alkylthio substituted by substituent(s) independently selected from the group consisting of:
  - carbocyclic aryl,
  - carbocyclic aryl substituted by halogen, and
  - carbocyclic aryl substituted by C<sub>1-5</sub> alkoxy,
- carbocyclic arylthio,
- heterocyclythio,

- heterocyclylthio substituted by C<sub>1-5</sub> alkyl,
- °C<sub>3-6</sub> cycloalkyl,
- °C<sub>3-6</sub> cycloalkenyl,
- °carbocyclyl,
- carbocyclyl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - C<sub>1-5</sub> alkyl,
  - C<sub>1-5</sub> alkoxy,
  - C<sub>2-5</sub> alkenyl, and
  - C<sub>2-5</sub> alkenyl substituted by substituent(s) independently selected from the group consisting of:
    - carbocyclic aryl, and
    - carbocyclic aryl substituted by C<sub>1-5</sub> alkylsulfinyl,
- carbocyclic aryl,
- carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - hydroxy,
  - nitro,
  - C<sub>1-5</sub> alkyl,
  - C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:
    - oxo,
    - carbocyclic aryl, and
    - heterocyclyl,
  - C<sub>2-5</sub> alkenyl,
  - C<sub>1-5</sub> alkoxy,

- C<sub>1-5</sub> alkoxy substituted by halogen,
- C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,
- carbocyclic aryloxy,
- mono-carbocyclic arylaminocarbonyl,
- mono-carbocyclic arylaminocarbonyl substituted by halogen,
- di-carbocyclic arylaminocarbonyl,
- di-carbocyclic arylaminocarbonyl substituted by halogen,
- carbocyclic aryl, and
- heterocyclyl,

•heterocyclyl, and

•heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkyl substituted by carbocyclic aryl,
- C<sub>1-5</sub> alkoxy,
- C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,
- carbocyclic aryl, and
- carbocyclic aryl substituted by halogen,

(ii) C<sub>2-7</sub> alkenyl, and

C<sub>2-7</sub> alkenyl substituted by substituent(s) independently selected from the group consisting of:

- carbocyclic aryl,
- carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- halogen,
- nitro, and
- C<sub>1-5</sub> alkoxy,

(iii) C<sub>2-5</sub> alkynyl, and

- C<sub>2-5</sub> alkynyl substituted by carbocyclic aryl,
- (iv) C<sub>3-6</sub> cycloalkyl, and  
C<sub>3-6</sub> cycloalkyl substituted by substituent(s) independently selected from the group consisting of:
- C<sub>1-5</sub> alkyl,
  - C<sub>1-5</sub> alkyl substituted by oxo,
  - C<sub>1-5</sub> alkyl substituted by carbocyclic aryl, and
  - carbocyclic aryl,
- (v) carbocyclyl,
- (vi) carbocyclic aryl, and  
carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
- halogen,
  - hydroxy,
  - cyano,
  - nitro,
  - C<sub>1-5</sub> alkyl,
  - C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:
    - halogen,
    - oxo,
    - carbocyclic aryloxy,
    - carbocyclic aryl, and
    - carbocyclic aryl substituted by C<sub>1-5</sub> alkyl,
  - C<sub>1-5</sub> alkoxy,
  - C<sub>1-5</sub> alkoxy substituted by substituent(s) independently selected from the group consisting of:
    - halogen,

- carbocyclic aryl, and
- halogenated carbocyclic aryl,
- C<sub>2-5</sub> alkenyloxy,
- C<sub>3-6</sub> cycloalkoxy,
- carbocyclic aryloxy,
- carbocyclic aryloxy substituted by C<sub>1-5</sub> alkoxy,
- C<sub>1-5</sub> alkoxy carbonyl,
- mono-C<sub>1-5</sub> alkylaminocarbonyl,
- di-C<sub>1-5</sub> alkylaminocarbonyl,
- mono-C<sub>1-5</sub> alkylaminocarbonyl substituted by carbocyclic aryl,
- di-C<sub>1-5</sub> alkylaminocarbonyl substituted by carbocyclic aryl,
- amino,
- mono-C<sub>1-5</sub> alkylamino,
- di-C<sub>1-5</sub> alkylamino,
- mono-C<sub>1-5</sub> alkylamino substituted by cyano,
- di-C<sub>1-5</sub> alkylamino substituted by cyano,
- C<sub>2-5</sub> alkynylcarbonylamino,
- C<sub>2-5</sub> alkynylcarbonylamino substituted by carbocyclic aryl,
- (carbocyclic aryl)NHC(O)NH,
- (carbocyclic aryl)NHC(O)NH substituted by C<sub>1-5</sub> alkoxy,
- (carbocyclic aryl)NHC(O)NH substituted by halogenated C<sub>1-5</sub> alkoxy,
- C<sub>1-5</sub> alkylthio,
- C<sub>1-5</sub> alkylthio substituted by halogen,
- carbocyclic arylthio,
- carbocyclic arylthio substituted by cyano,
- mono-C<sub>1-5</sub> alkylaminosulfonyl,
- di-C<sub>1-5</sub> alkylaminosulfonyl, and
- carbocyclic aryl,



- (vii) heterocyclyl, and  
heterocyclyl substituted by substituent(s) independently selected from the  
group consisting of:
- halogen,
  - nitro,
  - C<sub>1-5</sub> alkyl,
  - C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the  
group consisting of:
    - halogen,
    - hydroxy,
    - C<sub>1-5</sub> alkylthio,
    - C<sub>1-5</sub> alkylthio substituted by carbocyclic aryl,
    - C<sub>1-5</sub> alkylthio substituted by halogenated carbocyclic aryl,
    - carbocyclic aryl,
    - carbocyclic aryl substituted by halogen, and
    - heterocyclyl,
  - C<sub>1-5</sub> alkoxy,
  - carbocyclic aryloxy,
  - carbocyclic aryloxy substituted by C<sub>1-5</sub> alkyl,
  - C<sub>1-5</sub> alkylthio,
  - C<sub>2-5</sub> alkenylthio,
  - carbocyclic arylthio,
  - carbocyclic arylthio substituted by C<sub>1-5</sub> alkoxycarbonyl,
  - C<sub>1-5</sub> alkylsulfonyl,
  - carbocyclic arylsulfonyl,
  - carbocyclic arylsulfonyl substituted by C<sub>1-5</sub> alkyl,
  - C<sub>1-5</sub> alkoxycarbonyl,
  - carbocyclic aryl,

\*carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•nitro,

•C<sub>1-5</sub> alkyl, and

•C<sub>1-5</sub> alkyl substituted by halogen,

\*heterocyclyl;

R<sub>2</sub> is methylamino or dimethylamino when Y is a single bond or -CH<sub>2</sub>-;

wherein carbocyclic aryl is phenyl, naphthyl, or anthranyl;

carbocyclyl is 1,2,3,4-tetrahydronaphthyl, 1-oxo-indanyl, 9-fluorenyl, 9-oxo-9H-fluorenyl, bicyclo[2.2.1]heptyl, indenyl, or menthyl;

heterocyclyl is 1,2,3-triazolyl, 1H-indolyl, 1H-pyrrolyl, 2,3-dihydro-1-oxo-isindolyl, 2,3-dihydro-benzo[1,4]dioxinyl, 2,3-dihydro-benzofuryl, 2,4-dihydro-3-oxo-pyrazolyl, 2H-benzopyranyl, 2-oxo-benzopyranyl, 3,4-dihydro-2H-benzo[b][1,4]dioxepinyl, 4-oxo-benzopyranyl, 9H-carbazolyl, 9H-xanthenyl, azetidiny, benzo[1,3]dioxolyl, benzo[2,1,3]oxadiazolyl, benzo[1,2,5]oxadiazolyl, benzo[b]thienyl, benzofuryl, benzothiazolyl, furyl, imidazo[2,1-b]thiazolyl, imidazolyl, isoxazolyl, morpholino, pyrazolyl, pyridyl, pyrimidyl, quinolyl, quinoxalyl, thiazolyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

4. The compound according to claim 3 wherein R<sub>1</sub> is selected from the group consisting of:

(i) C<sub>1-7</sub> alkyl, and

C<sub>1-7</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•C<sub>1-5</sub> alkoxy,

•C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,

- carbocyclic aryloxy,
- carbocyclic aryloxy substituted by halogen,
- mono-C<sub>1-5</sub> alkylamino,
- mono-C<sub>1-5</sub> alkylamino substituted by substituent(s) independently selected from the group consisting of:
  - cyano, and
  - carbocyclic aryl,
- di-C<sub>1-5</sub> alkylamino,
- di-C<sub>1-5</sub> alkylamino substituted by substituent(s) independently selected from the group consisting of:
  - cyano, and
  - carbocyclic aryl,
- mono-carbocyclic arylamino,
- di-carbocyclic arylamino,
- carbocyclic arylsulfonylamino,
- carbocyclic arylsulfonylamino substituted by C<sub>1-5</sub> alkyl,
- carbocyclic aryl,
- carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - nitro,
  - C<sub>1-5</sub> alkyl,
  - C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:
    - oxo, and
    - carbocyclic aryl,
  - C<sub>1-5</sub> alkoxy,
  - C<sub>1-5</sub> alkoxy substituted by halogen,

- heterocyclyl,
  - heterocyclyl substituted by carbocyclic aryl, and
  - heterocyclyl substituted by halogen,
- (ii) C<sub>2-7</sub> alkenyl, and
- C<sub>2-7</sub> alkenyl substituted by substituent(s) independently selected from the group consisting of:
- carbocyclic aryl, and
  - carbocyclic aryl substituted by C<sub>1-5</sub> alkoxy,
- (iii) C<sub>2-5</sub> alkynyl, and
- C<sub>2-5</sub> alkynyl substituted by carbocyclic aryl,
- (iv) C<sub>3-6</sub> cycloalkyl, and
- C<sub>3-6</sub> cycloalkyl substituted by substituent(s) independently selected from the group consisting of:
- C<sub>1-5</sub> alkyl, and
  - C<sub>1-5</sub> alkyl substituted by carbocyclic aryl,
- (v) carbocyclic aryl, and
- carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
- halogen,
  - hydroxy,
  - cyano,
  - C<sub>1-5</sub> alkyl,
  - C<sub>1-5</sub> alkyl substituted by halogen,
  - C<sub>1-5</sub> alkoxy,
  - C<sub>1-5</sub> alkoxy substituted by substituent(s) independently selected from the group consisting of:
    - halogen, and
    - carbocyclic aryl,

••carbocyclic aryl substituted by halogen,

•C<sub>2-5</sub> alkenyloxy,

•mono-C<sub>1-5</sub> alkylamino,

•di-C<sub>1-5</sub> alkylamino,

•mono-C<sub>1-5</sub> alkylamino substituted by cyano,

•di-C<sub>1-5</sub> alkylamino substituted by cyano,

•C<sub>1-5</sub> alkylthio, and

•C<sub>1-5</sub> alkylthio substituted by halogen,

(vi) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

••hydroxy, and

••carbocyclic aryl,

•C<sub>1-5</sub> alkoxy,

•carbocyclic arylthio,

•carbocyclic arylthio substituted by C<sub>1-5</sub> alkoxy carbonyl,

•C<sub>1-5</sub> alkoxy carbonyl,

•carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••C<sub>1-5</sub> alkyl, and

••C<sub>1-5</sub> alkyl substituted by halogen,

L is Formula (VII);

Y is a single bond or  $-\text{CH}_2-$ ;

$\text{R}_2$  is methylamino or dimethylamino;

wherein carbocyclic aryl is phenyl or naphthyl;

heterocyclyl is 1*H*-indolyl, 1*H*-pyrrolyl, 2,3-dihydro-benzo[1,4]dioxinyl,

4-oxo-benzopyranyl, 9*H*-carbazolyl, azetidiny, benzo[1,3]dioxolyl,

benzo[b]thienyl, furyl, imidazo[2,1-*b*]thiazolyl, pyrazolyl, pyridyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

5. The compound according to claim 4 wherein p is 0;  $\text{R}_3$  and  $\text{R}_4$  are hydrogen; A is a single bond or  $-\text{CH}_2-$ ; and B is a single bond or  $-\text{CH}_2-$ ;  
or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

6. The compound according to claim 5 wherein  $\text{R}_1$  is selected from the group consisting of:

(i)  $\text{C}_{1-5}$  alkyl, and

$\text{C}_{1-5}$  alkyl substituted by substituent(s) independently selected from the group consisting of:

•mono- $\text{C}_{1-5}$  alkylamino,

•mono- $\text{C}_{1-5}$  alkylamino substituted by cyano,

•di- $\text{C}_{1-5}$  alkylamino,

•di- $\text{C}_{1-5}$  alkylamino substituted by cyano,

•mono-carbocyclic arylamino,

•di-carbocyclic arylamino,

•carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

••halogen, and

•• $\text{C}_{1-5}$  alkoxy,

- heterocyclyl, and
  - heterocyclyl substituted by carbocyclic aryl,
  - (ii) C<sub>2-5</sub> alkenyl, and  
C<sub>2-5</sub> alkenyl substituted by carbocyclic aryl,
  - (iii) carbocyclic aryl, and  
carbocyclic aryl substituted by substituent(s) independently selected from  
the group consisting of:
    - halogen,
    - hydroxy,
    - C<sub>1-5</sub> alkoxy,
    - C<sub>1-5</sub> alkoxy substituted by halogen, and
    - C<sub>2-5</sub> alkenyloxy,
  - (iv) heterocyclyl, and  
heterocyclyl substituted by substituent(s) independently selected from the  
group consisting of:
    - halogen,
    - C<sub>1-5</sub> alkyl,
    - C<sub>1-5</sub> alkyl substituted by carbocyclic aryl,
    - C<sub>1-5</sub> alkoxy, and
    - C<sub>1-5</sub> alkoxy carbonyl;
 wherein carbocyclic aryl is phenyl or naphthyl;  
 heterocyclyl is 1*H*-indolyl, azetidiny, or benzo[1,3]dioxolyl; and  
 halogen is fluoro, chloro, bromo, or iodo;
- or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

7. The compound according to claim 1 selected from the group consisting of:

ethyl 4,6-dichloro-3-[[*(cis*-4-[[4-(dimethylamino)quinolin-2-yl]amino)-  
cyclohexyl]amino]methyl]-1*H*-indole-2-carboxylate;

3-{{2-[(cis-4-{{4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-amino]ethyl}(phenyl)amino]propanenitrile;

N<sup>4</sup>,N<sup>4</sup>-dimethyl-N<sup>2</sup>-(cis-4-{{2-(2-phenyl-1H-indol-3-yl)ethyl]amino}-cyclohexyl)quinoline-2,4-diamine;

N<sup>2</sup>-[cis-4-({1-(diphenylmethyl)azetidin-3-yl)methyl}amino)cyclohexyl]-N<sup>4</sup>,N<sup>4</sup>-dimethylquinoline-2,4-diamine;

N<sup>2</sup>-(cis-4-{{[(2,6-dimethoxybenzyl)amino]methyl}cyclohexyl)-N<sup>4</sup>,N<sup>4</sup>-dimethylquinoline-2,4-diamine;

N<sup>2</sup>-(cis-4-{{[(2-ethoxybenzyl)amino]methyl}cyclohexyl)-N<sup>4</sup>,N<sup>4</sup>-dimethylquinoline-2,4-diamine;

N<sup>2</sup>-[cis-4-({[(4-methoxy-1-naphthyl)methyl]amino}methyl)cyclohexyl]-N<sup>4</sup>,N<sup>4</sup>-dimethylquinoline-2,4-diamine;

4-bromo-2-({[(cis-4-{{4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-methyl]amino}methyl)-6-methoxyphenol;

N<sup>2</sup>-[cis-4-({[(5-bromo-1H-indol-3-yl)methyl]amino}methyl)cyclohexyl]-N<sup>4</sup>,N<sup>4</sup>-dimethylquinoline-2,4-diamine;

N<sup>2</sup>-(cis-4-{{[(5-bromo-2,4-dimethoxybenzyl)amino]methyl}cyclohexyl)-N<sup>4</sup>,N<sup>4</sup>-dimethylquinoline-2,4-diamine;

N<sup>2</sup>-(cis-4-{{[(3,3-diphenylprop-2-en-1-yl)amino]methyl}cyclohexyl)-N<sup>4</sup>,N<sup>4</sup>-dimethylquinoline-2,4-diamine;

N<sup>4</sup>,N<sup>4</sup>-dimethyl-N<sup>2</sup>-(cis-4-{{(2,4,6-trimethoxybenzyl)amino]methyl}-cyclohexyl)quinoline-2,4-diamine;

N<sup>2</sup>-(cis-4-{{[(2,5-diethoxybenzyl)amino]methyl}cyclohexyl)-N<sup>4</sup>,N<sup>4</sup>-dimethylquinoline-2,4-diamine;

N<sup>2</sup>-(cis-4-{{[(2,4-diethoxybenzyl)amino]methyl}cyclohexyl)-N<sup>4</sup>,N<sup>4</sup>-dimethylquinoline-2,4-diamine;

N<sup>2</sup>-(cis-4-{{[(3,5-dibromo-2-methoxybenzyl)amino]methyl}cyclohexyl)-N<sup>4</sup>,N<sup>4</sup>-dimethylquinoline-2,4-diamine;



$N^4, N^4$ -dimethyl- $N^2$ -(cis-4-{{(2,4,5-triethoxybenzyl)amino}methyl}-cyclohexyl)quinoline-2,4-diamine;

$N^4, N^4$ -dimethyl- $N^2$ -(cis-4-{{(2,4,5-trimethoxybenzyl)amino}methyl}-cyclohexyl)quinoline-2,4-diamine;

$N^2$ -[cis-4-{{(2-(allyloxy)benzyl)amino}methyl}cyclohexyl]- $N^4, N^4$ -dimethylquinoline-2,4-diamine;

$N^2$ -[cis-4-{{(7-methoxy-1,3-benzodioxol-5-yl)methyl}amino}methyl]-cyclohexyl]- $N^4, N^4$ -dimethylquinoline-2,4-diamine;

$N^2$ -[cis-4-[2-(4-bromo-2-trifluoromethoxy-phenyl)-ethylamino]-cyclohexyl]- $N^4, N^4$ -dimethyl-quinoline-2,4-diamine;

$N^2$ -[cis-4-(4-bromo-2-trifluoromethoxy-benzyl)amino-cyclohexyl]- $N^4, N^4$ -dimethyl-quinoline-2,4-diamine;

$N^2$ -[cis-4-(4-bromo-2-trifluoromethoxy-benzyl)amino-cyclohexyl]- $N^4$ -methyl-quinoline-2,4-diamine;

$N^2$ -[4-[2-(4-bromo-2-trifluoromethoxy-phenyl)-ethylamino]-cyclohexyl]- $N^4$ -methyl-quinoline-2,4-diamine;

$N^4$ -methyl- $N^2$ -[cis-4-[(2-trifluoromethoxy-benzyl)amino-methyl]-cyclohexyl]-quinoline-2,4-diamine;

$N^2$ -[cis-4-[(4-bromo-2-trifluoromethoxy-benzyl)amino-methyl]-cyclohexyl]- $N^4$ -methyl-quinoline-2,4-diamine;

$N^2$ -[cis-4-[(4-bromo-2-trifluoromethoxy-benzyl)amino-methyl]-cyclohexyl]- $N^4, N^4$ -dimethyl-quinoline-2,4-diamine;

$N^4, N^4$ -dimethyl- $N^2$ -[cis-4-[(2-trifluoromethoxy-benzyl)amino-methyl]-cyclohexyl]-quinoline-2,4-diamine;

cis- $N$ -(3,5-dimethoxybenzyl)- $N'$ -(4-methylquinolin-2-yl)cyclohexane-1,4-diamine;

and

cis- $N$ -(3,5-dichlorobenzyl)- $N'$ -(4-methylquinolin-2-yl)cyclohexane-1,4-diamine;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

8. The compound according to claim 3 wherein  $R_1$  is selected from the group consisting of:

(i)  $C_{1-5}$  alkyl, and

$C_{1-5}$  alkyl substituted by substituent(s) independently selected from the group consisting of:

•hydroxy,

•oxo,

• $C_{1-5}$  alkoxy,

• $C_{1-5}$  alkoxy substituted by carbocyclic aryl,

• $C_{1-5}$  alkylcarbonyloxy,

•carbocyclic aryloxy,

•carbocyclic aryloxy substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••nitro,

•• $C_{1-5}$  alkyl,

•• $C_{1-5}$  alkoxy, and

•• $C_{1-5}$  alkoxy substituted by halogen,

•heterocyclyloxy,

•heterocyclyloxy substituted by  $C_{1-5}$  alkyl,

•mono- $C_{1-5}$  alkylaminocarbonyl,

•di- $C_{1-5}$  alkylaminocarbonyl,

•mono- $C_{1-5}$  alkylamino,

•di- $C_{1-5}$  alkylamino,

•mono-carbocyclic arylamino,

•di-carbocyclic arylamino,

•mono-carbocyclic arylamino substituted by halogen,

•di-carbocyclic arylamino substituted by halogen,

- carbocyclic arylcarbonylamino,
- °C<sub>1-5</sub> alkoxy carbonylamino,
- °C<sub>1-5</sub> alkylthio,
- °C<sub>1-5</sub> alkylthio substituted by substituent(s) independently selected from the group consisting of:
  - °°carbocyclic aryl, and
  - °°carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
    - °°°halogen, and
    - °°°C<sub>1-5</sub> alkoxy,
- carbocyclic arylthio,
- heterocyclylthio,
- heterocyclylthio substituted by C<sub>1-5</sub> alkyl,
- C<sub>3-6</sub> cycloalkyl,
- C<sub>3-6</sub> cycloalkenyl,
- carbocyclyl,
- carbocyclyl substituted by substituent(s) independently selected from the group consisting of:
  - °°halogen,
  - °°C<sub>1-5</sub> alkyl,
  - °°C<sub>1-5</sub> alkoxy,
  - °°C<sub>2-5</sub> alkenyl, and
  - °°C<sub>2-5</sub> alkenyl substituted by substituent(s) independently selected from the group consisting of:
    - °°°carbocyclic aryl, and
    - °°°carbocyclic aryl substituted by C<sub>1-5</sub> alkylsulfinyl,
- carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••hydroxy,

••nitro,

••C<sub>1-3</sub> alkyl,

••C<sub>1-3</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•••oxo,

•••carbocyclic aryl, and

•••heterocyclyl,

••C<sub>1-3</sub> alkoxy,

••C<sub>1-3</sub> alkoxy substituted by halogen,

••C<sub>1-3</sub> alkoxy substituted by carbocyclic aryl,

••carbocyclic aryloxy,

••mono-carbocyclic arylaminocarbonyl,

••mono-carbocyclic arylaminocarbonyl substituted by halogen,

••di-carbocyclic arylaminocarbonyl,

••di-carbocyclic arylaminocarbonyl substituted by halogen,

••carbocyclic aryl, and

••heterocyclyl,

•heterocyclyl, and

•heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

••C<sub>1-3</sub> alkyl,

••C<sub>1-3</sub> alkyl substituted by carbocyclic aryl,

••C<sub>1-3</sub> alkoxy,

••C<sub>1-3</sub> alkoxy substituted by carbocyclic aryl,

••carbocyclic aryl, and

••carbocyclic aryl substituted by halogen,

(ii) C<sub>2-5</sub> alkenyl, and

C<sub>2-5</sub> alkenyl substituted by substituent(s) independently selected from the group consisting of:

•carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

••halogen, and

••nitro,

(iii) C<sub>3-6</sub> cycloalkyl, and

C<sub>3-6</sub> cycloalkyl substituted by substituent(s) independently selected from the group consisting of:

•C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

••oxo, and

••carbocyclic aryl, and

•carbocyclic aryl,

(iv) carbocyclyl,

(v) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•hydroxy,

•cyano,

•nitro,

•carboxy,

- carbamoyl,
- C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - hydroxy,
  - oxo,
  - carbocyclic aryloxy,
  - carbocyclic aryl, and
  - carbocyclic aryl substituted by C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkoxy,
- C<sub>1-5</sub> alkoxy substituted by substituent(s) independently selected from the group consisting of:
  - halogen, and
  - carbocyclic aryl,
- carbocyclic aryloxy,
- carbocyclic aryloxy substituted by C<sub>1-5</sub> alkoxy,
- C<sub>1-5</sub> alkoxycarbonyl,
- mono-C<sub>1-5</sub> alkylaminocarbonyl,
- di-C<sub>1-5</sub> alkylaminocarbonyl,
- mono-C<sub>1-5</sub> alkylaminocarbonyl substituted by carbocyclic aryl,
- di-C<sub>1-5</sub> alkylaminocarbonyl substituted by carbocyclic aryl,
- amino,
- mono-C<sub>1-5</sub> alkylamino,
- di-C<sub>1-5</sub> alkylamino,
- C<sub>2-5</sub> alkynylcarbonylamino,
- C<sub>2-5</sub> alkynylcarbonylamino substituted by carbocyclic aryl,
- (carbocyclic aryl)NHC(O)NH,

- (carbocyclic aryl)NHC(O)NH substituted by C<sub>1-5</sub> alkoxy,
- (carbocyclic aryl)NHC(O)NH substituted by halogenated C<sub>1-5</sub> alkoxy,
- C<sub>1-5</sub> alkylthio,
- C<sub>1-5</sub> alkylthio substituted by halogen,
- carbocyclic arylthio,
- carbocyclic arylthio substituted by cyano,
- mono-C<sub>1-5</sub> alkylaminosulfonyl,
- di-C<sub>1-5</sub> alkylaminosulfonyl, and
- carbocyclic aryl,

(vi) heterocyclyl, and  
 heterocyclyl substituted by substituent(s) independently selected from the  
 group consisting of:

- halogen,
- nitro,
- hydroxy,
- amino,
- C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the  
 group consisting of:
  - halogen,
  - C<sub>1-5</sub> alkylthio,
  - C<sub>1-5</sub> alkylthio substituted by carbocyclic aryl,
  - C<sub>1-5</sub> alkylthio substituted by halogenated carbocyclic aryl,
  - carbocyclic aryl,
  - carbocyclic aryl substituted by halogen, and
  - heterocyclyl,
- C<sub>1-5</sub> alkoxy,
- carbocyclic aryloxy,

- carbocyclic aryloxy substituted by halogen,
- carbocyclic aryloxy substituted by C<sub>1-5</sub> alkyl,
- carbocyclic aryloxy substituted by C<sub>1-5</sub> alkoxy,
- mono-C<sub>1-5</sub> alkylamino,
- di-C<sub>1-5</sub> alkylamino,
- C<sub>1-5</sub> alkylthio,
- C<sub>2-5</sub> alkenylthio,
- carbocyclic arylthio,
- C<sub>1-5</sub> alkylsulfonyl,
- carbocyclic arylsulfonyl,
- carbocyclic arylsulfonyl substituted by C<sub>1-5</sub> alkyl,
- carbocyclic aryl,
- carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- halogen,
- nitro, and
- C<sub>1-5</sub> alkyl,

•heterocyclyl;

L is Formula (VII);

Y is -C(O)-;

wherein carbocyclic aryl is phenyl, naphthyl, or anthranyl;

carbocyclyl is 1,2,3,4-tetrahydronaphthyl, 1-oxo-indanyl, 9-oxo-9H-fluorenyl, or indenyl;

heterocyclyl is 1,2,3-triazolyl, 1H-indolyl, 1H-pyrrolyl, 2,3-dihydro-1-oxo-isindolyl, 2,3-dihydro-benzofuryl, 2,4-dihydro-3-oxo-pyrazolyl, 2H-benzopyranyl, 2-oxo-benzopyranyl, 9H-xanthenyl, benzo[1,3]dioxolyl, benzo[2,1,3]oxadiazolyl, benzo[1,2,5]oxadiazolyl, benzo[b]thienyl, benzofuryl,



benzothiazolyl, furyl, imidazolyl, isoxazolyl, morpholino, pyrazolyl, pyridyl, pyrimidyl, quinolyl, quinoxalyl, thiazolyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

9. The compound according to claim 8 wherein R<sub>2</sub> is hydrogen, halogen, methyl, trifluoromethyl, methoxy, carbamoyl, amino, methylamino, or dimethylamino; p is 0; R<sub>3</sub> and R<sub>4</sub> are hydrogen; A is a single bond; B is a single bond or -CH<sub>2</sub>-; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
10. The compound according to claim 9 wherein R<sub>1</sub> is selected from the group consisting of:
- (i) C<sub>1-5</sub> alkyl, and  
C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:
    - oxo,
    - carbocyclic aryloxy,
    - carbocyclic aryloxy substituted by halogen,
    - carbocyclic aryloxy substituted by C<sub>1-5</sub> alkyl,
    - carbocyclic aryloxy substituted by C<sub>1-5</sub> alkoxy,
    - mono-C<sub>1-5</sub> alkylamino,
    - di-C<sub>1-5</sub> alkylamino,
    - mono-carbocyclic arylamino,
    - di-carbocyclic arylamino,
    - mono-carbocyclic arylamino substituted by halogen,
    - di-carbocyclic arylamino substituted by halogen,
    - C<sub>3-6</sub> cycloalkyl,
    - carbocyclic aryl,

•carbocyclic aryl by substituent(s) independently selected from the group consisting of:

•halogen,

•C<sub>1-5</sub> alkyl, and

•C<sub>1-5</sub> alkoxy,

•heterocyclyl, and

•heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

•C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkoxy, and

•carbocyclic aryl,

(ii) C<sub>2-5</sub> alkenyl, and

C<sub>2-5</sub> alkenyl substituted by substituent(s) independently selected from the group consisting of:

•carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

•halogen, and

•nitro,

(iii) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•hydroxy,

•cyano,

•nitro,

•carbamoyl,

•C<sub>1-5</sub> alkyl,

- C<sub>1-5</sub> alkyl substituted by halogen,
- C<sub>1-5</sub> alkyl substituted by hydroxy,
- C<sub>1-5</sub> alkoxy,carbonyl,
- C<sub>1-5</sub> alkoxy,
- C<sub>1-5</sub> alkoxy substituted by substituent(s) independently selected from the group consisting of:

- halogen, and

- carbocyclic aryl,

- carbocyclic aryloxy, and

- carbocyclic aryloxy substituted by C<sub>1-5</sub> alkoxy,

(iv) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- halogen,

- nitro,

- amino,

- C<sub>1-5</sub> alkyl,

- C<sub>1-5</sub> alkyl substituted by halogen,

- C<sub>1-5</sub> alkoxy,

- carbocyclic aryloxy,

- carbocyclic aryloxy substituted by halogen,

- carbocyclic aryloxy substituted by C<sub>1-5</sub> alkyl,

- carbocyclic aryloxy substituted by C<sub>1-5</sub> alkoxy,

- mono-C<sub>1-5</sub> alkylamino,

- di-C<sub>1-5</sub> alkylamino,

- carbocyclic aryl,

- carbocyclic aryl substituted by halogen,

- carbocyclic aryl substituted by nitro, and

•heterocyclyl;

wherein carbocyclic aryl is phenyl;

heterocyclyl is 1,2,3-triazolyl, 1*H*-indolyl, 1*H*-pyrrolyl, 9*H*-xanthenyl, benzo[2,1,3]oxadiazolyl, benzo[1,2,5]oxadiazolyl, furyl, isoxazolyl, pyridyl, quinolyl, quinoxalyl, thiazolyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

11. The compound according to claim 10 wherein R<sub>1</sub> is selected from the group consisting of:

(i) C<sub>1-5</sub> alkyl, and

C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•carbocyclic aryloxy,

•carbocyclic aryloxy substituted by halogen,

•carbocyclic aryloxy substituted by C<sub>1-5</sub> alkyl,

•carbocyclic aryloxy substituted by C<sub>1-5</sub> alkoxy,

•mono-C<sub>1-5</sub> alkylamino,

•di-C<sub>1-5</sub> alkylamino,

•mono-carbocyclic arylamino,

•di-carbocyclic arylamino,

•mono-carbocyclic arylamino substituted by halogen,

•di-carbocyclic arylamino substituted by halogen,

•carbocyclic aryl,

•carbocyclic aryl by substituent(s) independently selected from the group consisting of:

••halogen,

••C<sub>1-5</sub> alkyl, and

••C<sub>1-5</sub> alkoxy,

and

•heterocyclyl,

(ii) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•nitro,

•hydroxy,

•cyano,

•C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkyl substituted by halogen,

•C<sub>1-5</sub> alkoxycarbonyl,

•C<sub>1-5</sub> alkoxy,

•C<sub>1-5</sub> alkoxy substituted by halogen,

•carbocyclic aryloxy, and

•carbocyclic aryloxy substituted by C<sub>1-5</sub> alkoxy,

(iii) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•nitro,

•C<sub>1-5</sub> alkyl,

•carbocyclic aryloxy,

•carbocyclic aryloxy substituted by halogen,

•carbocyclic aryloxy substituted by C<sub>1-5</sub> alkyl,

•carbocyclic aryloxy substituted by C<sub>1-5</sub> alkoxy,

•carbocyclic aryl,

•carbocyclic aryl substituted by halogen,

•carbocyclic aryl substituted by nitro, and

•heterocyclyl;

wherein carbocyclic aryl is phenyl;

heterocyclyl is 1*H*-indolyl, 1*H*-pyrrolyl, 9*H*-xanthenyl,

benzo[2,1,3]oxadiazolyl, benzo[1,2,5]oxadiazolyl, furyl, isoxazolyl, pyridyl, thiazolyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

12. The compound according to claim 1 selected from the group consisting of:

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-3-methoxybenzamide;

3-bromo-N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-benzamide;

4-bromo-N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-benzamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-2,1,3-benzoxadiazole-5-carboxamide;

3-chloro-N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-benzamide;

4-chloro-N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-benzamide;

4-chloro-N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-3-nitrobenzamide;

3-cyano-N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-benzamide;

3,5-dichloro-N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)benzamide;

3,4-dichloro-N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl})benzamide;

N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2,2-diphenylacetamide;

N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3,4-difluorobenzamide;

N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3,5-difluorobenzamide;

N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-4-fluorobenzamide;

N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-fluoro-5-(trifluoromethyl)benzamide;

N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-4-methyl-3-nitrobenzamide;

N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-nitrobenzamide;

N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-phenoxybutanamide;

N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-phenoxypropanamide;

N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-methylbenzamide;

N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-(trifluoromethoxy)benzamide;

4-bromo-N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-methylbenzamide;

N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-iodobenzamide;

3-chloro-N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2,4-difluorobenzamide;

N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2,5-dimethyl-3-furamide;

3-chloro-N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-4-fluorobenzamide;

N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-fluoro-4-methylbenzamide;

N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3,5-dimethoxybenzamide;

N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3,5-bis(trifluoromethyl)benzamide;

(2E)-N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-(4-nitrophenyl)acrylamide;

N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-4-fluoro-3-methylbenzamide;

2,5-dichloro-N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)thiophene-3-carboxamide;

2-(4-chlorophenoxy)-N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)acetamide;

3-(2-chlorophenyl)-N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-5-methylisoxazole-4-carboxamide;

1-(4-chlorophenyl)-N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)cyclopentanecarboxamide;

3-(2-chloro-6-fluorophenyl)-N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-5-methylisoxazole-4-carboxamide;

N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-fluorobenzamide;

N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-4-fluoro-3-(trifluoromethyl)benzamide;



N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-5-methyl-2-phenyl-2H-1,2,3-triazole-4-carboxamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-2-(4-methoxyphenoxy)-5-nitrobenzamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-5-nitro-2-furamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-2-phenoxyacetamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)quinoxaline-2-carboxamide;

2-(3-chlorophenoxy)-N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)acetamide;

3-(2,6-dichlorophenyl)-N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-5-methylisoxazole-4-carboxamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-2-phenoxy nicotinamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-2-(4-methylphenoxy)nicotinamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-2-(2-thienyl)-1,3-thiazole-4-carboxamide;

5-bromo-N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-thiophene-2-carboxamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-2-(2,3,6-trichlorophenyl)acetamide;

5-(4-chloro-2-nitrophenyl)-N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-2-furamide;

5-chloro-N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-thiophene-2-carboxamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-5-iodo-2-furamide;  
N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-2-(2-iodophenyl)acetamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-2-(5-methoxy-2-methyl-1H-indol-3-yl)acetamide;

(2E)-N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-3-(3-nitrophenyl)acrylamide;

2,2-bis(4-chlorophenyl)-N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}-amino}cyclohexyl)acetamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-5-nitrothiophene-2-carboxamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-3-methyl-4-nitrobenzamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-3-methoxy-4-nitrobenzamide;

5-bromo-N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-2-furamide;

4,5-dibromo-N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}-cyclohexyl)thiophene-2-carboxamide;

4,5-dibromo-N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}-cyclohexyl)-2-furamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-2-(1H-indol-3-yl)acetamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-2-(1H-indol-3-yl)-4-oxo-4-phenylbutanamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-2-(2-phenyl-1H-indol-3-yl)acetamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino} cyclohexyl)-2-(2,4,6-trichlorophenoxy)acetamide;

3-(benzyloxy)-N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}-cyclohexyl)-4-methoxybenzamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino} cyclohexyl)-2-phenoxybenzamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino} cyclohexyl)-2-phenylquinoline-4-carboxamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino} cyclohexyl)-5-(3-nitrophenyl)-2-furamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino} cyclohexyl)-5-nitrothiophene-3-carboxamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino} cyclohexyl)-1-methyl-4-nitro-1H-pyrrole-2-carboxamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino} cyclohexyl)-4-nitrobenzamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino} cyclohexyl)-2-methoxy-4-nitrobenzamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino} cyclohexyl)-3-fluoro-4-(trifluoromethyl)benzamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino} cyclohexyl)-3,5-dimethyl-4-nitrobenzamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino} cyclohexyl)-2-mesityl-2-oxoacetamide;

5-chloro-N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino} cyclohexyl)-2-hydroxybenzamide;

N-[(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino} cyclohexyl)methyl]-3-methoxybenzamide;

3-bromo-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)-methyl]benzamide;

4-bromo-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)-methyl]benzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)methyl]-2,1,3-benzoxadiazole-5-carboxamide;

3-chloro-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)-methyl]benzamide;

4-chloro-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)-methyl]benzamide;

4-chloro-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)-methyl]-3-nitrobenzamide;

3-cyano-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)-methyl]benzamide;

3,5-dichloro-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)methyl]benzamide;

3,4-dichloro-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)methyl]benzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)methyl]-2,2-diphenylacetamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)methyl]-3,4-difluorobenzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)methyl]-3,5-difluorobenzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)methyl]-4-fluorobenzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)methyl]-3-fluoro-5-(trifluoromethyl)benzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)methyl]-4-methyl-3-nitrobenzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)methyl]-3-nitrobenzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)methyl]-2-phenoxybutanamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)methyl]-2-phenoxypropanamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)methyl]-3-methylbenzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)methyl]-3-(trifluoromethoxy)benzamide;

4-bromo-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)-methyl]-3-methylbenzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)methyl]-3-iodobenzamide;

3-chloro-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)-methyl]-2,4-difluorobenzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)methyl]-2,5-dimethyl-3-furamide;

3-chloro-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)-methyl]-4-fluorobenzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)methyl]-3-fluoro-4-methylbenzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)methyl]-3,5-dimethoxybenzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)methyl]-3,5-bis(trifluoromethyl)benzamide;

(2E)-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)-methyl]-3-(4-nitrophenyl)acrylamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)methyl]-4-fluoro-3-methylbenzamide;

2,5-dichloro-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)methyl]thiophene-3-carboxamide;

2,6-dichloro-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)methyl]benzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)methyl]-2,4,6-trimethylbenzamide;

2,4,6-trichloro-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)methyl]benzamide;

(2E)-3-(2-chlorophenyl)-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)methyl]acrylamide;

5-bromo-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)-methyl]thiophene-2-carboxamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)methyl]-2-(2,3,6-trichlorophenyl)acetamide;

5-(4-chloro-2-nitrophenyl)-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)methyl]-2-furamide;

5-chloro-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)-methyl]thiophene-2-carboxamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)methyl]-5-iodo-2-furamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)methyl]-2-(2-iodophenyl)acetamide;

(2E)-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)-methyl]-3-(3-nitrophenyl)acrylamide;

2,2-bis(4-chlorophenyl)-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]acetamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-5-nitrothiophene-2-carboxamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-3-methyl-4-nitrobenzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-3-methoxy-4-nitrobenzamide;

N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-2-phenoxy-nicotinamide;

3,4-difluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

3,4-difluoro-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

2-phenoxy-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

3-chloro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

N-[cis-4-(4-chloro-quinolin-2-ylamino)-cyclohexyl]-2-phenoxy-nicotinamide;

3-methyl-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

3-methoxy-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

3-chloro-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

5-nitro-thiophene-3-carboxylic acid [cis-4-(quinolin-2-ylamino)-cyclohexyl]-amide;

5-nitro-thiophene-3-carboxylic acid [cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-amide;

3-chloro-4-fluoro-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

3,5-dimethoxy-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

3,4-dichloro-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

benzo[2,3,1]oxadiazole-5-carboxylic acid [cis-4-(quinolin-2-ylamino)-cyclohexyl]-amide;

3-methyl-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

3-methoxy-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

- 4-cyano-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;
- 1-methyl-4-nitro-1H-pyrrole-2-carboxylic acid [cis-4-(quinolin-2-ylamino)-cyclohexyl]-amide;
- 9H-xanthene-9-carboxylic acid [cis-4-(quinolin-2-ylamino)-cyclohexyl]-amide;
- 5-(4-chloro-phenyl)-furan-2-carboxylic acid [cis-4-(quinolin-2-ylamino)-cyclohexyl]-amide;
- 3-nitro-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;
- 4-fluoro-3-methyl-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;
- 3-bromo-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;
- 2-(2-bromo-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-nicotinamide;
- 3-cyano-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;
- N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-trifluoromethyl-benzamide;
- N-[cis-4-(4-chloro-quinolin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide;
- 3,4-dichloro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;
- 3-chloro-4-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;
- 4-fluoro-3-methyl-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;
- 1-methyl-4-nitro-1H-pyrrole-2-carboxylic acid [cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-amide;
- 9H-xanthene-9-carboxylic acid [cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-amide;
- 5-bromo-furan-2-carboxylic acid [cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-amide;
- N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-2-*m*-tolyl-oxy-acetamide;
- N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-2-*m*-tolyl-oxy-acetamide;
- 2,2-diphenyl-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-acetamide;
- 5-bromo-furan-2-carboxylic acid [cis-4-(quinolin-2-ylamino)-cyclohexyl]-amide;



benzo[2,3,1]oxadiazole-5-carboxylic acid [cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-amide;

3-bromo-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

3-cyano-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-3-trifluoromethyl-benzamide;

N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-2,2-diphenyl-acetamide;

2-(4-fluoro-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

2-(4-fluoro-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

2-(3,4-difluoro-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

2-(3,4-difluoro-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-2-*p*-tolyl-oxy-nicotinamide;

N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-2-*p*-tolyl-oxy-nicotinamide;

2-(4-chloro-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

2-(4-chloro-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

2-(4-bromo-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

2-(4-bromo-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

2-(4-methoxy-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

2-(4-methoxy-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

2-(3-chloro-4-fluoro-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-

nicotinamide;

2-(3-chloro-4-fluoro-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-2-*m*-tolylloxy-nicotinamide;  
N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-2-*m*-tolylloxy-nicotinamide;  
2-(3-methoxy-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-  
acetamide;  
2-(3-chloro-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-  
acetamide;  
2-(3-chloro-4-fluoro-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-  
cyclohexyl]-acetamide;  
2-(3,4-dichloro-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-  
acetamide;  
C-(methyl-phenyl-amino)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-  
acetamide;  
2-(3,4-dichloro-phenylamino)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-  
cyclohexyl]-acetamide;  
2-(3-methoxy-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-acetamide;  
2-(3-chloro-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-acetamide;  
2-(3-chloro-4-fluoro-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-  
acetamide;  
2-(3,4-dichloro-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-acetamide;  
C-(methyl-phenyl-amino)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-acetamide;  
2-(3,4-dichloro-phenylamino)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-  
acetamide;  
3-hydroxy-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;  
N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-isophthalamic acid methyl ester;  
N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-3-trifluoromethoxy-benzamide;  
N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-bis-trifluoromethyl-  
benzamide;

N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-3-trifluoromethoxy-benzamide;

N-[cis-4-(4-amino-quinolin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide;

C-(ethyl-phenyl-amino)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-acetamide;

C-(ethyl-phenyl-amino)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-acetamide;

3-hydroxy-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

2-amino-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

2,3-difluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

2,4-difluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

2,5-difluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

2,6-difluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

3,5-difluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

C-[(4-chloro-phenyl)-ethyl-amino]-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-acetamide;

4-chloro-3-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

4-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

3-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

2-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

4-chloro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-isophthalamide methyl ester;

3,5-difluoro-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

4-chloro-3-fluoro-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

C-[(4-chloro-phenyl)-ethyl-amino]-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-

acetamide;

6-chloro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

6-dimethylamino-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

3-hydroxymethyl-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-isophthalamide;

3-chloro-5-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

3,4,5-trifluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

pyridine-2-carboxylic acid [cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-amide;

4-chloro-pyridine-2-carboxylic acid [cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-amide;

5-bromo-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-6-trifluoromethyl-nicotinamide;

3,4-difluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexylmethyl]-benzamide;

N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexylmethyl]-2-phenoxy-nicotinamide;

N-[cis-4-(4-dimethylamino-quinolin-2-ylamino)-cyclohexylmethyl]-3,4-difluoro-benzamide;

3,4-difluoro-N-[cis-4-(quinolin-2-ylamino)-cyclohexylmethyl]-benzamide;

2-phenoxy-N-[cis-4-(quinolin-2-ylamino)-cyclohexylmethyl]-nicotinamide;

4-methyl-N-{cis-4-[(4-methylquinolin-2-yl)amino]cyclohexyl}benzamide;

2-(4-chlorophenoxy)-N-{cis-4-[(4-methylquinolin-2-yl)amino]cyclohexyl}acetamide;

3,4,5-trimethoxy-N-{cis-4-[(4-methylquinolin-2-yl)amino]cyclohexyl}benzamide;

2-(3,4-difluorophenyl)-N-{cis-4-[(4-methylquinolin-2-yl)amino]cyclohexyl}acetamide;

2-(2-bromo-4,5-dimethoxyphenyl)-N-{cis-4-[(4-methylquinolin-2-yl)amino]cyclohexyl}acetamide;  
2,6-dimethoxy-N-{cis-4-[(4-methylquinolin-2-yl)amino]cyclohexyl}nicotinamide;  
N-{cis-4-[(4-methylquinolin-2-yl)amino]cyclohexyl}-4-(trifluoromethoxy)benzamide;  
5-chloro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide; and  
5-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;  
or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

13. The compound according to claim 12 selected from the group consisting of:

3-bromo-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-benzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2,1,3-benzoxadiazole-5-carboxamide;

3-chloro-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-benzamide;

4-chloro-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-benzamide;

4-chloro-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-nitrobenzamide;

3,4-dichloro-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3,4-difluorobenzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-4-fluorobenzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-phenoxybutanamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-phenoxypropanamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-methylbenzamide;

4-bromo-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2,5-dimethyl-3-furamide;

3-chloro-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-4-fluorobenzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3,5-dimethoxybenzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-4-fluoro-3-methylbenzamide;

2-(4-chlorophenoxy)-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)acetamide;

3-(2-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)-5-methylisoxazole-4-carboxamide;

3-(2-chloro-6-fluorophenyl)-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-5-methylisoxazole-4-carboxamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-4-fluoro-3-(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-(4-methoxyphenoxy)-5-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-5-nitro-2-furamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-2-phenoxyacetamide;

2-(3-chlorophenoxy)-N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}-cyclohexyl)acetamide;

3-(2,6-dichlorophenyl)-N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}-cyclohexyl)-5-methylisoxazole-4-carboxamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-2-phenoxynicotinamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-2-(4-methylphenoxy)nicotinamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-2-(2-thienyl)-1,3-thiazole-4-carboxamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-2-(2,3,6-trichlorophenyl)acetamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-5-iodo-2-furamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-5-nitrothiophene-2-carboxamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-3-methyl-4-nitrobenzamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-3-methoxy-4-nitrobenzamide;

5-bromo-N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-2-furamide;

4,5-dibromo-N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}-cyclohexyl)-2-furamide;

N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-2-(1H-indol-3-yl)acetamide;

N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl}-5-(3-nitrophenyl)-2-furamide;

N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl}-5-nitrothiophene-3-carboxamide;

N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl}-1-methyl-4-nitro-1H-pyrrole-2-carboxamide;

N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl}-4-nitrobenzamide;

N-(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl}-3-fluoro-4-(trifluoromethyl)benzamide;

3-bromo-N-[(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-methyl]benzamide;

N-[(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-2,1,3-benzoxadiazole-5-carboxamide;

3-chloro-N-[(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-methyl]benzamide;

4-chloro-N-[(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-methyl]benzamide;

4-chloro-N-[(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-methyl]-3-nitrobenzamide;

3,4-dichloro-N-[(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]benzamide;

N-[(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-3,4-difluorobenzamide;

N-[(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-4-fluorobenzamide;

N-[(cis-4-{{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-3-nitrobenzamide;



N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-2-phenoxybutanamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-2-phenoxypropanamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-3-methylbenzamide;

4-bromo-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-methyl]-3-methylbenzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-2,5-dimethyl-3-furamide;

3-chloro-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-methyl]-4-fluorobenzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-3,5-dimethoxybenzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-4-fluoro-3-methylbenzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-2,4,6-trimethylbenzamide;

2,4,6-trichloro-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)methyl]benzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-2-(2,3,6-trichlorophenyl)acetamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-5-iodo-2-furamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-5-nitrothiophene-2-carboxamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-3-methyl-4-nitrobenzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-3-methoxy-4-nitrobenzamide;

N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-2-phenoxy-nicotinamide;

3,4-difluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

3,4-difluoro-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

2-phenoxy-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

3-chloro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

3-methyl-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

3-methoxy-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

3-chloro-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

5-nitro-thiophene-3-carboxylic acid [cis-4-(quinolin-2-ylamino)-cyclohexyl]-amide;

5-nitro-thiophene-3-carboxylic acid [cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-amide;

3-chloro-4-fluoro-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

3,5-dimethoxy-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

3,4-dichloro-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

benzo[2,3,1]oxadiazole-5-carboxylic acid [cis-4-(quinolin-2-ylamino)-cyclohexyl]-amide;

3-methyl-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

3-methoxy-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

4-cyano-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

1-methyl-4-nitro-1H-pyrrole-2-carboxylic acid [cis-4-(quinolin-2-ylamino)-cyclohexyl]-amide;

9H-xanthene-9-carboxylic acid [cis-4-(quinolin-2-ylamino)-cyclohexyl]-amide;

3-nitro-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

4-fluoro-3-methyl-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

3-bromo-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

2-(2-bromo-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-nicotinamide;  
3-cyano-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;  
N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-trifluoromethyl-benzamide;  
N-[cis-4-(4-chloro-quinolin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide;  
3,4-dichloro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;  
3-chloro-4-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;  
4-fluoro-3-methyl-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-  
benzamide;  
1-methyl-4-nitro-1H-pyrrole-2-carboxylic acid [cis-4-(4-methyl-quinolin-2-  
ylamino)-cyclohexyl]-amide;  
9H-xanthene-9-carboxylic acid [cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-  
amide;  
5-bromo-furan-2-carboxylic acid [cis-4-(4-methyl-quinolin-2-ylamino)-  
cyclohexyl]-amide;  
N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-2-*m*-tolylloxy-acetamide;  
N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-2-*m*-tolylloxy-acetamide;  
2,2-diphenyl-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-acetamide;  
5-bromo-furan-2-carboxylic acid [cis-4-(quinolin-2-ylamino)-cyclohexyl]-amide;  
benzo[2,3,1]oxadiazole-5-carboxylic acid [cis-4-(4-methyl-quinolin-2-ylamino)-  
cyclohexyl]-amide;  
3-bromo-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;  
3-cyano-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;  
N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-3-trifluoromethyl-benzamide;  
N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-2,2-diphenyl-acetamide;  
2-(4-fluoro-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-nicotinamide;  
2-(4-fluoro-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-  
nicotinamide;

2-(3,4-difluoro-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-  
nicotinamide;

2-(3,4-difluoro-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-  
nicotinamide;

N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-2-*p*-tolylloxy-nicotinamide;

N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-2-*p*-tolylloxy-nicotinamide;

2-(4-chloro-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

2-(4-chloro-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-  
nicotinamide;

2-(4-bromo-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

2-(4-bromo-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-  
nicotinamide;

2-(4-methoxy-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

2-(4-methoxy-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-  
nicotinamide;

2-(3-chloro-4-fluoro-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-  
cyclohexyl]-nicotinamide;

N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-2-*m*-tolylloxy-nicotinamide;

N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-2-*m*-tolylloxy-nicotinamide;

2-(3-methoxy-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-  
acetamide;

2-(3-chloro-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-  
acetamide;

2-(3-chloro-4-fluoro-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-  
cyclohexyl]-acetamide;

2-(3,4-dichloro-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-  
acetamide;

C-(methyl-phenyl-amino)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-acetamide;

2-(3-methoxy-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-acetamide;

2-(3-chloro-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-acetamide;

2-(3-chloro-4-fluoro-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-acetamide;

2-(3,4-dichloro-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-acetamide;

C-(methyl-phenyl-amino)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-acetamide;

N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-3-trifluoromethoxy-benzamide;

N-[cis-4-(4-amino-quinolin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide;

C-(ethyl-phenyl-amino)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-acetamide;

C-(ethyl-phenyl-amino)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-acetamide;

3-hydroxy-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

2,4-difluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

3,5-difluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

C-[(4-chloro-phenyl)-ethyl-amino]-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-acetamide;

4-chloro-3-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

4-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

3-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

4-chloro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-isophthalamid acid methyl ester;

3,5-difluoro-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

4-chloro-3-fluoro-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

C-[(4-chloro-phenyl)-ethyl-amino]-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-acetamide;

6-chloro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

3-chloro-5-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

3,4,5-trifluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

5-bromo-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

4-methyl-N-[cis-4-[(4-methylquinolin-2-yl)amino]cyclohexyl] benzamide;

2-(4-chlorophenoxy)-N-[cis-4-[(4-methylquinolin-2-yl)amino]cyclohexyl]-acetamide;

3,4,5-trimethoxy-N-[cis-4-[(4-methylquinolin-2-yl)amino]cyclohexyl] benzamide;

2-(3,4-difluorophenyl)-N-[cis-4-[(4-methylquinolin-2-yl)amino]cyclohexyl]-acetamide;

2-(2-bromo-4,5-dimethoxyphenyl)-N-[cis-4-[(4-methylquinolin-2-yl)amino]-cyclohexyl]acetamide;

2,6-dimethoxy-N-[cis-4-[(4-methylquinolin-2-yl)amino]cyclohexyl] nicotinamide;

N-[cis-4-[(4-methylquinolin-2-yl)amino]cyclohexyl]-4-(trifluoromethoxy)-benzamide;

5-chloro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide; and

5-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

14. The compound according to claim 3 wherein  $R_1$  is selected from the group consisting of:

$C_{1-16}$  alkyl, and

$C_{1-16}$  alkyl substituted by substituent(s) independently selected from the group consisting of:

•carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- halogen,
- C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkyl substituted by halogen,
- C<sub>1-5</sub> alkoxy, and
- C<sub>1-5</sub> alkoxy substituted by halogen,

L is Formula (XV);

Y is -C(O)NR<sub>3</sub>-;

wherein carbocyclic aryl is phenyl; and

halogen is fluoro, chloro, or bromo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

15. The compound according to claim 14 wherein R<sub>1</sub> is selected from the group consisting of:

C<sub>1-16</sub> alkyl, and

C<sub>1-16</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

- carbocyclic aryl,
- carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- halogen,
- C<sub>1-5</sub> alkyl, and
- C<sub>1-5</sub> alkyl substituted by halogen,

wherein carbocyclic aryl is phenyl; and

halogen is fluoro, chloro, or bromo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

16. The compound according to claim 14 or 15 wherein R<sub>2</sub> is methyl; p is 0; R<sub>3</sub> and R<sub>4</sub> are both hydrogen; A and B are both single bonds; and R<sub>5</sub> is hydrogen;  
or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

17. The compound according to claim 1 selected from the group consisting of:

cis-N-[(1R)-1-(4-bromophenyl)ethyl]-4-[(4-methylquinolin-2-yl)amino]cyclohexanecarboxamide;

cis-N-[(1S)-1-[3,5-bis(trifluoromethyl)phenyl]ethyl]-4-[(4-methylquinolin-2-yl)amino]cyclohexanecarboxamide;

cis-N-[(1R)-1-(2-fluorophenyl)ethyl]-4-[(4-methylquinolin-2-yl)amino]cyclohexanecarboxamide;

cis-N-[(1S)-1-(2-fluorophenyl)ethyl]-4-[(4-methylquinolin-2-yl)amino]cyclohexanecarboxamide;

cis-4-[(4-methylquinolin-2-yl)amino]-N-[(1S)-1-[2-(trifluoromethyl)phenyl]ethyl]cyclohexanecarboxamide;

cis-4-[(4-methylquinolin-2-yl)amino]-N-[(1S)-1-[3-(trifluoromethyl)phenyl]ethyl]cyclohexanecarboxamide;

cis-N-[(1R)-1-(4-chlorophenyl)ethyl]-4-[(4-methylquinolin-2-yl)amino]cyclohexanecarboxamide; and

cis-N-[(1S)-1-(4-chlorophenyl)ethyl]-4-[(4-methylquinolin-2-yl)amino]cyclohexanecarboxamide;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

18. The compound according to claim 1 selected from the group consisting of:

cis-N-[(1R)-1-(4-bromophenyl)ethyl]-4-[(4-methylquinolin-2-yl)amino]cyclohexanecarboxamide;

cis-N-[(1S)-1-(2-fluorophenyl)ethyl]-4-[(4-methylquinolin-2-yl)amino]cyclohexanecarboxamide;

cis-4-[(4-methylquinolin-2-yl)amino]-N-[(1S)-1-[2-(trifluoromethyl)phenyl]ethyl]cyclohexanecarboxamide; and



cis-4-[(4-methylquinolin-2-yl)amino]-N-[(1S)-1-[3-(trifluoromethyl)phenyl]ethyl]cyclohexanecarboxamide;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

19. The compound according to claim 3 wherein R<sub>1</sub> is selected from the group consisting of:

(i) C<sub>1-5</sub> alkyl, and

C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•C<sub>1-5</sub> alkoxycarbonyl,

•C<sub>1-5</sub> alkylthio,

•carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••C<sub>1-5</sub> alkyl, and

••C<sub>2-5</sub> alkenyl,

(ii) C<sub>3-6</sub> cycloalkyl, and

C<sub>3-6</sub> cycloalkyl substituted by carbocyclic aryl,

(iii) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•cyano,

•nitro,

•C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkyl substituted by halogen,

•C<sub>1-5</sub> alkoxycarbonyl,

•C<sub>1-5</sub> alkoxy,

•C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,

•C<sub>3-6</sub> cycloalkoxy,

•carbocyclic aryloxy,

•C<sub>1-5</sub> alkylthio, and

•carbocyclic aryl,

(iv) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

•C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkyl substituted by halogen, and

•carbocyclic aryl;

L is Formula (VII);

Y is -C(O)NR<sub>5</sub>;

wherein carbocyclic aryl is phenyl or naphthyl;

heterocyclyl is 2,3-dihydro-benzo[1,4]dioxinyl, 3,4-dihydro-2H-

benzo[b][1,4]dioxepinyl, benzo[1,3]dioxolyl, furyl, or isoxazolyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

20. The compound according to claim 19 wherein R<sub>2</sub> is hydrogen, methyl, methylamino, or dimethylamino; p is 0; R<sub>3</sub> and R<sub>4</sub> are hydrogen; A is a single bond; B is a single bond or -CH<sub>2</sub>-; R<sub>5</sub> is hydrogen; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
21. The compound according to claim 20 wherein R<sub>1</sub> is selected from the group consisting of:
- (i) C<sub>1-5</sub> alkyl, and
- C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:
- C<sub>1-5</sub> alkoxycarbonyl,

- carbocyclic aryl, and
- carbocyclic aryl substituted by halogen,
- (ii) carbocyclic aryl, and  
carbocyclic aryl substituted by substituent(s) independently selected from  
the group consisting of:
  - halogen,
  - nitro,
  - C<sub>1-5</sub> alkyl,
  - C<sub>1-5</sub> alkyl substituted by halogen, and
  - C<sub>1-5</sub> alkoxy,
- (iii) heterocyclyl,  
heterocyclyl substituted by C<sub>1-5</sub> alkyl, and  
heterocyclyl substituted by carbocyclic aryl;  
wherein carbocyclic aryl is phenyl or naphthyl;  
heterocyclyl is isoxazolyl; and  
halogen is fluoro, chloro, bromo, or iodo;  
or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

22. The compound according to claim 1 selected from the group consisting of:

N-(2-chlorophenyl)-N'-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-  
cyclohexyl)urea;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-N'-(2-ethyl-6-  
methylphenyl)urea;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-N'-mesitylurea;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-N'-(2,4,6-  
trichlorophenyl)urea;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-N'-(2,4,6-  
tribromophenyl)urea;

N-(2,4-dibromo-6-fluorophenyl)-N'-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)urea;

N-(2,6-diethylphenyl)-N'-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)urea;

N-(2-chlorobenzyl)-N'-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)urea;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)-N'-(2-ethyl-6-isopropylphenyl)urea;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)-N'-(2-isopropyl-6-methylphenyl)urea;

N-(2-tert-butyl-6-methylphenyl)-N'-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)urea;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)-N'-(diphenylmethyl)urea;

N-(4-bromo-2,6-dimethylphenyl)-N'-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)urea;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)-N'-(3-methyl-5-phenylisoxazol-4-yl)urea;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)-N'-1-naphthylurea;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)-N'-[1-(1-naphthyl)ethyl]urea;

methyl N-{[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)-amino]carbonyl}phenylalaninate;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)-N'-(3,4,5-trimethoxyphenyl)urea;

N-(5-chloro-2,4-dimethoxyphenyl)-N'-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino} cyclohexyl)urea;

N-(4-bromo-2-methylphenyl)-N'-[(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino} cyclohexyl)urea];

N-[(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino} cyclohexyl)methyl]-N'-(2-ethyl-6-methylphenyl)urea;

N-[(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino} cyclohexyl)methyl]-N'-mesitylurea;

N-[(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino} cyclohexyl)methyl]-N'-(2,4,6-trichlorophenyl)urea;

N-[(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino} cyclohexyl)methyl]-N'-(2,4,6-tribromophenyl)urea;

N-(2,4-dibromo-6-fluorophenyl)-N'-[(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino} cyclohexyl)methyl]urea;

N-(2,6-diethylphenyl)-N'-[(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino} cyclohexyl)methyl]urea;

N-[2-chloro-6-(trifluoromethyl)phenyl]-N'-[(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino} cyclohexyl)methyl]urea;

N-[(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino} cyclohexyl)methyl]-N'-(2-ethyl-6-isopropylphenyl)urea;

N-[(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino} cyclohexyl)methyl]-N'-(2-isopropyl-6-methylphenyl)urea;

N-[(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino} cyclohexyl)methyl]-N'-(2-methyl-3-nitrophenyl)urea;

N-(2-tert-butyl-6-methylphenyl)-N'-[(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino} cyclohexyl)methyl]urea;

N-(2-tert-butylphenyl)-N'-[(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino} cyclohexyl)methyl]urea;

N-[(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino} cyclohexyl)methyl]-N'-(diphenylmethyl)urea;

N-(4-bromo-2,6-dimethylphenyl)-N'-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]urea;

N-(2,3-dichlorophenyl)-N'-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]-amino}cyclohexyl)methyl]urea;

N-(2,6-diisopropylphenyl)-N'-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]-amino}cyclohexyl)methyl]urea;

1-(2,3-dichloro-phenyl)-3-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-urea;  
and

1-(2,3-dichloro-phenyl)-3-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexylmethyl]-urea;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

23. The compound according to claim 3 wherein R<sub>1</sub> is selected from the group consisting of:

(i) C<sub>1-5</sub> alkyl, and

C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

••halogen, and

••C<sub>1-5</sub> alkoxy,

(ii) carbocyclyl,

(iii) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•cyano,

•nitro,

- C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkyl substituted by halogen,
- C<sub>1-5</sub> alkoxy carbonyl,
- C<sub>1-5</sub> alkoxy,
- C<sub>1-5</sub> alkoxy substituted by halogen,
- mono-C<sub>1-5</sub> alkylamino,
- di-C<sub>1-5</sub> alkylamino, and
- carbocyclic aryl,

(iv) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkoxy carbonyl, and
- carbocyclic aryl;

L is Formula (VII);

Y is -C(S)NR<sub>5</sub>;

wherein carbocyclic aryl is phenyl or naphthyl;

carbocyclyl is bicyclo[2.2.1]heptyl;

heterocyclyl is 2,3-dihydro-benzo[1,4]dioxinyl, benzo[1,3]dioxolyl,

isoxazolyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

24. The compound according to claim 23 wherein R<sub>2</sub> is methylamino or dimethylamino; p is 0; R<sub>3</sub> and R<sub>4</sub> are hydrogen; A is a single bond; B is a single bond or -CH<sub>2</sub>-; R<sub>5</sub> is hydrogen; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
25. The compound according to claim 24 wherein R<sub>1</sub> is selected from the group consisting of:

- (i) carbocyclic aryl, and  
 carbocyclic aryl substituted by substituent(s) independently selected from  
 the group consisting of:  
 •halogen,  
 •C<sub>1-5</sub> alkyl,  
 •C<sub>1-5</sub> alkyl substituted by halogen,  
 •C<sub>1-5</sub> alkoxy,  
 •mono-C<sub>1-5</sub> alkylamino, and  
 •di-C<sub>1-5</sub> alkylamino,
- (ii) heterocyclyl, and  
 heterocyclyl substituted by C<sub>1-5</sub> alkyl, and  
 heterocyclyl substituted by C<sub>1-5</sub> alkoxy carbonyl;  
 wherein carbocyclic aryl is phenyl or naphthyl;  
 heterocyclyl is thienyl; and  
 halogen is fluoro, chloro, bromo, or iodo;  
 or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

26. The compound according to claim 1 selected from the group consisting of:

N-(2,4-dimethoxyphenyl)-N'-(cis-4-{[4-(dimethylamino)quinolin-2-yl]-  
 amino}cyclohexyl)thiourea;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-N'-(3,4,5-  
 trimethoxyphenyl)thiourea;

N-[4-(dimethylamino)-1-naphthyl]-N'-(cis-4-{[4-(dimethylamino)quinolin-2-  
 yl]amino}cyclohexyl)thiourea;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-N'-(2,4,6-  
 tribromophenyl)thiourea;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-N'-(2,4,6-  
 trichlorophenyl)thiourea;



N-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-N'-mesitylthiourea;

N-(2,6-diethylphenyl)-N'-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}-cyclohexyl)thiourea;

N-(4-bromo-2,6-dimethylphenyl)-N'-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)thiourea;

N-(4-bromo-2-methylphenyl)-N'-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)thiourea;

N-[4-bromo-2-(trifluoromethyl)phenyl]-N'-(cis-4-{{4-(dimethylamino)-quinolin-2-yl}amino}cyclohexyl)thiourea;

N-(5-chloro-2,4-dimethoxyphenyl)-N'-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)thiourea;

N-(2,4-dibromo-6-fluorophenyl)-N'-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)thiourea;

N-(2,4-dichloro-6-methylphenyl)-N'-(cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)thiourea; and

methyl 3-(((cis-4-{{4-(dimethylamino)quinolin-2-yl}amino}cyclohexyl)-amino)carbonothioyl)amino)-4-methylthiophene-2-carboxylate;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

27. The compound according to claim 3 wherein R<sub>1</sub> is selected from the group consisting of:

- (i) C<sub>1-8</sub> alkyl, and
- C<sub>1-8</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - C<sub>1-5</sub> alkoxy,
  - C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,
  - carbocyclyl,

•carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•nitro, and

•C<sub>1-5</sub> alkoxy,

(ii) C<sub>2-3</sub> alkenyl,

(iii) carbocyclyl,

(iv) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkyl substituted by halogen, and

•C<sub>1-5</sub> alkoxy;

L is Formula (VII);

Y is -C(O)O-;

wherein carbocyclic aryl is phenyl or naphthyl;

carbocyclyl is 9H-fluorenyl or menthyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

28. The compound according to claim 27 wherein R<sub>2</sub> is methylamino or dimethylamino; p is 0; R<sub>3</sub> and R<sub>4</sub> are hydrogen; A is a single bond; B is a single bond or -CH<sub>2</sub>-; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
29. The compound according to claim 2 wherein Q is Formula (III);
- R<sub>1</sub> is selected from the group consisting of:

- (i) C<sub>1-8</sub> alkyl, and
- C<sub>1-8</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:
- halogen,
  - oxo,
  - C<sub>1-5</sub> alkoxy,
  - C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,
  - C<sub>1-5</sub> alkylcarbonyloxy,
  - carbocyclic aryloxy,
  - carbocyclic aryloxy substituted by halogen,
  - carbocyclic aryloxy substituted by nitro,
  - heterocyclyloxy,
  - heterocyclyloxy substituted by C<sub>1-5</sub> alkyl,
  - C<sub>1-5</sub> alkoxycarbonyl,
  - mono-C<sub>1-5</sub> alkylaminocarbonyl,
  - di-C<sub>1-5</sub> alkylaminocarbonyl,
  - mono-C<sub>1-5</sub> alkylamino,
  - mono-C<sub>1-5</sub> alkylamino substituted by cyano,
  - mono-C<sub>1-5</sub> alkylamino substituted by carbocyclic aryl,
  - di-C<sub>1-5</sub> alkylamino,
  - di-C<sub>1-5</sub> alkylamino substituted by cyano,
  - di-C<sub>1-5</sub> alkylamino substituted by carbocyclic aryl,
  - mono-carbocyclic arylamino,
  - mono-carbocyclic arylamino substituted by C<sub>1-5</sub> alkyl,
  - di-carbocyclic arylamino,
  - di-carbocyclic arylamino substituted by C<sub>1-5</sub> alkyl,
  - carbocyclic arylsulfonylamino,
  - carbocyclic arylsulfonylamino substituted C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkylthio,

•C<sub>1-5</sub> alkylthio substituted by substituent(s) independently selected from the group consisting of:

••carbocyclic aryl,

••carbocyclic aryl substituted by halogen, and

••carbocyclic aryl substituted by C<sub>1-5</sub> alkoxy,

•carbocyclic arylthio,

•heterocyclylthio,

•heterocyclylthio substituted by C<sub>1-5</sub> alkyl,

•C<sub>3-6</sub> cycloalkyl,

•C<sub>3-6</sub> cycloalkenyl,

•carbocyclyl,

•carbocyclyl substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••C<sub>1-5</sub> alkyl,

••C<sub>1-5</sub> alkoxy,

••C<sub>2-5</sub> alkenyl, and

••C<sub>2-5</sub> alkenyl substituted by substituent(s) independently selected from the group consisting of:

•••carbocyclic aryl, and

•••carbocyclic aryl substituted by C<sub>1-5</sub> alkylsulfinyl,

•carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••hydroxy,

••nitro,

\*\*C<sub>1-5</sub> alkyl,

\*\*C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

°°°OXO,

°°°carbocyclic aryl, and

°°°heterocyclyl,

\*\*C<sub>2-5</sub> alkenyl,

\*\*C<sub>1-5</sub> alkoxy,

\*\*C<sub>1-5</sub> alkoxy substituted by halogen,

\*\*C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,

\*\*carbocyclic aryloxy,

\*\*mono-carbocyclic arylaminocarbonyl,

\*\*mono-carbocyclic arylaminocarbonyl substituted by halogen,

\*\*di-carbocyclic arylaminocarbonyl,

\*\*di-carbocyclic arylaminocarbonyl substituted by halogen,

\*\*carbocyclic aryl, and

\*\*heterocyclyl,

•heterocyclyl, and

•heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

\*\*C<sub>1-5</sub> alkyl,

\*\*C<sub>1-5</sub> alkoxy,

\*\*C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,

\*\*carbocyclic aryl, and

°°°carbocyclic aryl substituted by halogen,

(ii) C<sub>2-7</sub> alkenyl, and

C<sub>2-7</sub> alkenyl substituted by substituent(s) independently selected from the group consisting of:

•carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••nitro, and

••C<sub>1-5</sub> alkoxy,

(iii) C<sub>2-5</sub> alkynyl,

(iv) C<sub>3-12</sub> cycloalkyl, and

C<sub>3-12</sub> cycloalkyl substituted by substituent(s) independently selected from the group consisting of:

•C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkyl substituted by oxo,

•C<sub>1-5</sub> alkyl substituted by carbocyclic aryl, and

•carbocyclic aryl,

(v) carbocyclyl,

(vi) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•hydroxy,

•cyano,

•nitro,

•C<sub>1-10</sub> alkyl,

•C<sub>1-10</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••oxo,

••carbocyclic aryloxy,

- \*\*carbocyclic aryl, and
- \*\*carbocyclic aryl substituted by C<sub>1-5</sub> alkyl,
  - C<sub>1-7</sub> alkoxy,
  - C<sub>1-7</sub> alkoxy substituted by substituent(s) independently selected from the group consisting of:
    - halogen,
    - \*\*carbocyclic aryl, and
    - \*\*halogenated carbocyclic aryl,
  - C<sub>2-5</sub> alkenyloxy,
  - C<sub>3-6</sub> cycloalkoxy,
  - carbocyclic aryloxy,
  - carbocyclic aryloxy substituted by nitro,
  - carbocyclic aryloxy substituted by C<sub>1-5</sub> alkoxy,
  - carboxy,
  - C<sub>1-5</sub> alkoxy carbonyl,
  - mono-C<sub>1-5</sub> alkylaminocarbonyl,
  - di-C<sub>1-5</sub> alkylaminocarbonyl,
  - mono-C<sub>1-5</sub> alkylaminocarbonyl substituted by carbocyclic aryl,
  - di-C<sub>1-5</sub> alkylaminocarbonyl substituted by carbocyclic aryl,
  - amino,
  - mono-C<sub>1-5</sub> alkylamino,
  - di-C<sub>1-5</sub> alkylamino,
  - mono-C<sub>1-5</sub> alkylamino substituted by cyano,
  - di-C<sub>1-5</sub> alkylamino substituted by cyano,
  - C<sub>2-5</sub> alkynylcarbonylamino,
  - C<sub>2-5</sub> alkynylcarbonylamino substituted by carbocyclic aryl,
  - C<sub>1-5</sub> alkoxy carbonylamino,
  - (carbocyclic aryl)NHC(O)NH,

- (carbocyclic aryl)NHC(O)NH substituted by C<sub>1-5</sub> alkoxy,
  - (carbocyclic aryl)NHC(O)NH substituted by halogenated C<sub>1-5</sub> alkoxy,
  - carbocyclic aryl azo,
  - carbocyclic aryl azo substituted by mono-C<sub>1-3</sub> alkylamino,
  - carbocyclic aryl azo substituted by di-C<sub>1-5</sub> alkylamino,
  - C<sub>1-5</sub> alkylthio,
  - C<sub>1-5</sub> alkylthio substituted by halogen,
  - carbocyclic arylthio,
  - carbocyclic arylthio substituted by nitro,
  - carbocyclic arylthio substituted by cyano,
  - aminosulfonyl,
  - mono-C<sub>1-5</sub> alkylaminosulfonyl,
  - di-C<sub>1-5</sub> alkylaminosulfonyl,
  - heterocyclylsulfonyl,
  - C<sub>3-6</sub> cycloalkyl,
  - C<sub>3-6</sub> cycloalkyl substituted by C<sub>1-3</sub> alkyl,
  - carbocyclic aryl,
  - heterocyclyl, and
  - heterocyclyl substituted by substituent(s) independently selected from the group consisting of:
    - C<sub>1-5</sub> alkyl,
    - carbocyclic aryl, and
    - halogenated carbocyclic aryl,
- (vii) heterocyclyl, and
- heterocyclyl substituted by substituent(s) independently selected from the group consisting of:
- halogen,
  - nitro,



•C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••hydroxy,

••C<sub>1-5</sub> alkylthio,

••C<sub>1-5</sub> alkylthio substituted by carbocyclic aryl,

••C<sub>1-5</sub> alkylthio substituted by halogenated carbocyclic aryl,

••carbocyclic aryl,

••carbocyclic aryl substituted by halogen, and

••heterocyclyl,

•C<sub>1-5</sub> alkoxy,

•carbocyclic aryloxy,

•carbocyclic aryloxy substituted by C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkylthio,

•C<sub>2-5</sub> alkenylthio,

•carbocyclic arylthio,

•carbocyclic arylthio substituted by C<sub>1-5</sub> alkoxy carbonyl,

•C<sub>1-5</sub> alkylsulfonyl,

•carbocyclic arylsulfonyl,

•carbocyclic arylsulfonyl substituted by C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkoxy carbonyl,

•C<sub>1-5</sub> alkoxy carbonyl substituted by carbocyclic aryl,

•carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••nitro,

\*\*C<sub>1-5</sub> alkyl, and

°C<sub>1-5</sub> alkyl substituted by halogen,

•heterocyclyl;

wherein carbocyclic aryl is phenyl, naphthyl, or anthranyl;

carbocyclyl is 1,2,3,4-tetrahydronaphthyl, 1-oxo-indanyl, 9-fluorenyl, 9H-fluorenyl, 9-oxo-9H-fluorenyl, adamantyl, bicyclo[2.2.1]heptenyl, bicyclo[2.2.1]heptyl, indanyl, indenyl, or menthyl;

heterocyclyl is 1,2,3-triazolyl, 1H-indolyl, 1H-pyrrolyl, 2,3-dihydro-1-oxo-isindolyl, 2,3-dihydro-benzo[1,4]dioxinyl, 2,4-dihydro-3-oxo-pyrazolyl, 2H-benzopyranlyl, 2-oxo-benzopyranlyl, 3,4-dihydro-2H-benzo[b][1,4]dioxepinyl, 4,5,6,7-tetrahydro-benzo[b]thienyl, 4H-benzo[1,3]dioxinyl, 4-oxo-1,5,6,7-tetrahydro-indolyl, 4-oxo-benzopyranlyl, 9H-carbazolyl, 9H-xanthenyl, azetidinyll, benzo[1,3]dioxolyl, benzo[2,1,3]oxadiazolyl, benzo[1,2,5]oxadiazolyl, benzo[2,1,3]thiadiazolyl, benzo[b]thienyl, benzofuryl, benzothiazolyl, furyl, imidazo[2,1-b]thiazolyl, isoxazolyl, morpholino, morpholinyl, oxazolyl, phenanthro[9,10-d]oxazolyl, piperidyl, pyrazolyl, pyridyl, pyrimidyl, quinolyl, quinoxalyl, tetrahydrofuryl, thiazolyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

30. The compound according to claim 29 wherein R<sub>1</sub> is selected from the group consisting of:

(i) C<sub>1-7</sub> alkyl, and

C<sub>1-7</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•C<sub>1-5</sub> alkoxy,

•C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,

•carbocyclic aryloxy,

•mono-C<sub>1-5</sub> alkylamino,

•mono-C<sub>1-5</sub> alkylamino substituted by substituent(s) independently selected from the group consisting of:

••cyano, and

••carbocyclic aryl,

•di-C<sub>1-5</sub> alkylamino,

•di-C<sub>1-5</sub> alkylamino substituted by substituent(s) independently selected from the group consisting of:

••cyano, and

••carbocyclic aryl,

•mono-carbocyclic arylamino,

•di-carbocyclic arylamino,

•mono-carbocyclic arylamino substituted by C<sub>1-5</sub> alkyl,

•di-carbocyclic arylamino substituted by C<sub>1-5</sub> alkyl,

•carbocyclic arylsulfonylamino,

•carbocyclic arylsulfonylamino substituted by C<sub>1-5</sub> alkyl,

•carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••nitro,

••C<sub>1-5</sub> alkyl,

••C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected

from the group consisting of:

•••oxo, and

•••carbocyclic aryl,

••C<sub>1-5</sub> alkoxy,

•heterocyclyl, and

•heterocyclyl substituted by carbocyclic aryl,

- (ii) C<sub>2-7</sub> alkenyl, and  
C<sub>2-7</sub> alkenyl substituted by substituent(s) independently selected from the group consisting of:
- carbocyclic aryl, and
  - carbocyclic aryl substituted by C<sub>1-5</sub> alkoxy,
- (iii) C<sub>3-6</sub> cycloalkyl, and  
C<sub>3-6</sub> cycloalkyl substituted by substituent(s) independently selected from the group consisting of:
- C<sub>1-5</sub> alkyl, and
  - C<sub>1-5</sub> alkyl substituted by carbocyclic aryl,
- (iv) carbocyclic aryl, and  
carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
- halogen,
  - hydroxy,
  - cyano,
  - C<sub>1-5</sub> alkyl,
  - C<sub>1-5</sub> alkyl substituted by halogen,
  - C<sub>1-5</sub> alkoxy,
  - C<sub>1-5</sub> alkoxy substituted by substituent(s) independently selected from the group consisting of:
    - halogen, and
    - carbocyclic aryl,
    - carbocyclic aryl substituted by halogen,
  - C<sub>2-5</sub> alkenyloxy,
  - mono-C<sub>1-5</sub> alkylamino,
  - di-C<sub>1-5</sub> alkylamino,
  - mono-C<sub>1-5</sub> alkylamino substituted by cyano,

- di-C<sub>1-5</sub> alkylamino substituted by cyano,
  - C<sub>1-5</sub> alkylthio, and
  - C<sub>1-5</sub> alkylthio substituted by halogen,
- (v) heterocyclyl, and
- heterocyclyl substituted by substituent(s) independently selected from the group consisting of:
- halogen,
  - C<sub>1-5</sub> alkyl,
  - C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:
    - hydroxy, and
    - carbocyclic aryl,
  - C<sub>1-5</sub> alkoxy,
  - carbocyclic arylthio,
  - carbocyclic arylthio substituted by C<sub>1-5</sub> alkoxy carbonyl,
  - C<sub>1-5</sub> alkoxy carbonyl,
  - carbocyclic aryl,
  - carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
    - halogen,
    - C<sub>1-5</sub> alkyl, and
    - C<sub>1-5</sub> alkyl substituted by halogen;
- L is Formula (VII);
- Y is a single bond or -CH<sub>2</sub>-;
- wherein carbocyclic aryl is phenyl or naphthyl;
- heterocyclyl is 1*H*-indolyl, 1*H*-pyrrolyl, 2,3-dihydro-benzo[1,4]dioxinyl, 4-oxo-benzopyranyl, 9*H*-carbazolyl, azetidiny, benzo[1,3]dioxolyl, benzo[b]thienyl, furyl, imidazo[2,1-*b*]thiazolyl, pyrazolyl, pyridyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

31. The compound according to claim 30 wherein R<sub>2</sub> is methylamino or dimethylamino; p is 0; R<sub>3</sub> and R<sub>4</sub> are hydrogen; A is a single bond; B is a single bond or -CH<sub>2</sub>-; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
32. The compound according to claim 31 wherein R<sub>1</sub> is selected from the group consisting of:
- (i) C<sub>1-5</sub> alkyl, and  
C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:
    - mono-C<sub>1-5</sub> alkylamino,
    - mono-C<sub>1-5</sub> alkylamino substituted by cyano,
    - di-C<sub>1-5</sub> alkylamino,
    - di-C<sub>1-5</sub> alkylamino substituted by cyano,
    - mono-carbocyclic arylamino,
    - di-carbocyclic arylamino,
    - mono-carbocyclic arylamino substituted by C<sub>1-5</sub> alkyl,
    - di-carbocyclic arylamino substituted by C<sub>1-5</sub> alkyl,
    - carbocyclic arylsulfonylamino,
    - carbocyclic arylsulfonylamino substituted by C<sub>1-5</sub> alkyl,
    - carbocyclic aryl, and
    - carbocyclic aryl substituted by C<sub>1-5</sub> alkoxy,
  - (ii) C<sub>2-5</sub> alkenyl, and  
C<sub>2-5</sub> alkenyl substituted by carbocyclic aryl,
  - (iii) carbocyclic aryl, and  
carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- halogen,
- hydroxy,
- C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkoxy,
- C<sub>1-5</sub> alkoxy substituted by halogen,
- mono-C<sub>1-5</sub> alkylamino, and
- di-C<sub>1-5</sub> alkylamino,

(iv) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- halogen,
- C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkyl substituted by carbocyclic aryl,
- C<sub>1-5</sub> alkoxy,
- C<sub>1-5</sub> alkoxy carbonyl,
- carbocyclic aryl,
- carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- halogen,
- C<sub>1-5</sub> alkyl, and
- C<sub>1-5</sub> alkyl substituted by halogen;

wherein carbocyclic aryl is phenyl or naphthyl;

heterocyclyl is 1*H*-indolyl, 4-oxo-benzopyranyl, azetidyl,

benzo[1,3]dioxolyl, or pyrazolyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- (i) C<sub>1-5</sub> alkyl, and  
C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:
- mono-C<sub>1-5</sub> alkylamino,
  - mono-C<sub>1-5</sub> alkylamino substituted by cyano,
  - di-C<sub>1-5</sub> alkylamino,
  - di-C<sub>1-5</sub> alkylamino substituted by cyano,
  - mono-carbocyclic arylamino,
  - di-carbocyclic arylamino,
  - carbocyclic arylsulfonylamino,
  - carbocyclic arylsulfonylamino substituted by C<sub>1-5</sub> alkyl, and
  - carbocyclic aryl,
- (ii) C<sub>2-5</sub> alkenyl, and  
C<sub>2-5</sub> alkenyl substituted by carbocyclic aryl,
- (iii) carbocyclic aryl, and  
carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
- halogen,
  - hydroxy,
  - C<sub>1-5</sub> alkoxy, and
  - C<sub>1-5</sub> alkoxy substituted by halogen,
- (iv) heterocyclyl, and  
heterocyclyl substituted by substituent(s) independently selected from the group consisting of:
- halogen,
  - C<sub>1-5</sub> alkyl,
  - C<sub>1-5</sub> alkyl substituted by carbocyclic aryl,
  - C<sub>1-5</sub> alkoxy,



•C<sub>1-5</sub> alkoxycarbonyl,

•carbocyclic aryl, and

•carbocyclic aryl substituted by halogen;

wherein carbocyclic aryl is phenyl;

heterocyclyl is 1*H*-indolyl, azetidiny, or pyrazolyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

34. The compound according to claim 1 selected from the group consisting of:

N<sup>2</sup>-{cis-4-[(2,6-dimethoxybenzyl)amino]cyclohexyl}-N<sup>4</sup>,N<sup>4</sup>-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

N<sup>2</sup>-{cis-4-[(2-ethoxybenzyl)amino]cyclohexyl}-N<sup>4</sup>,N<sup>4</sup>-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

N<sup>2</sup>-{cis-4-[(1*H*-indol-3-ylmethyl)amino]cyclohexyl}-N<sup>4</sup>,N<sup>4</sup>-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

N<sup>2</sup>-{cis-4-[(2,5-dimethoxybenzyl)amino]cyclohexyl}-N<sup>4</sup>,N<sup>4</sup>-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

N<sup>2</sup>-{cis-4-[[4-methoxy-1-naphthyl]methyl]amino}cyclohexyl}-N<sup>4</sup>,N<sup>4</sup>-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

N<sup>2</sup>-{cis-4-[[5-methoxy-1*H*-indol-3-yl]methyl]amino}cyclohexyl}-N<sup>4</sup>,N<sup>4</sup>-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

4-bromo-2-[[cis-4-[[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino]cyclohexyl]amino]methyl}-6-methoxyphenol;

N<sup>2</sup>-{cis-4-[[5-bromo-1*H*-indol-3-yl]methyl]amino}cyclohexyl}-N<sup>4</sup>,N<sup>4</sup>-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

4-[[cis-4-[[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino]cyclohexyl]amino]methyl}-2,6-dimethoxyphenol;

$N^2$ -{cis-4-[(3-ethoxy-4-methoxybenzyl)amino]cyclohexyl}- $N^4,N^4$ -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

$N^4,N^4$ -dimethyl- $N^2$ -{cis-4-[(3-[4-(trifluoromethyl)phenyl]-1H-pyrazol-4-yl)methyl]amino]cyclohexyl}-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

$N^4,N^4$ -dimethyl- $N^2$ -{cis-4-[(3,4,5-trimethoxybenzyl)amino]cyclohexyl}-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

$N^4,N^4$ -dimethyl- $N^2$ -{cis-4-[(pentamethylbenzyl)amino]cyclohexyl}-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

$N^2$ -{cis-4-[(3,5-dimethoxybenzyl)amino]cyclohexyl}- $N^4,N^4$ -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

4-{[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)amino]methyl}-2-iodo-6-methoxyphenol;

4-{[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)amino]methyl}-2,6-dimethylphenol;

3-{[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)amino]methyl}-6,8-dimethyl-4H-chromen-4-one;

ethyl 4,6-dichloro-3-{[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino]cyclohexyl)amino]methyl}-1H-indole-2-carboxylate;

$N^2$ -[cis-4-({[3-(4-fluorophenyl)-1H-pyrazol-4-yl]methyl)amino]cyclohexyl]- $N^4,N^4$ -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

$N^4,N^4$ -dimethyl- $N^2$ -[4-(pentamethylphenylmethyl-amino)-cyclohexyl]-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

3-{[2-{(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino]cyclohexyl)amino]ethyl}(3-methylphenyl)amino]propanenitrile;

3-{[2-{(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino]cyclohexyl)amino]ethyl}(phenyl)amino]propanenitrile;

N-{(1S)-1-benzyl-2-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino]cyclohexyl)amino]ethyl}-4-methylbenzenesulfonamide;

$N^2$ -(cis-4-{{[2-(3,5-dimethoxyphenyl)ethyl]amino}cyclohexyl}- $N^4,N^4$ -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

$N^2$ -[cis-4-({[1-(diphenylmethyl)azetidin-3-yl]methyl}amino)cyclohexyl]- $N^4,N^4$ -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

$N^2$ -(cis-4-{{[2,6-dimethoxybenzyl]amino}methyl}cyclohexyl)- $N^4,N^4$ -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

$N^2$ -(cis-4-{{[2-ethoxybenzyl]amino}methyl}cyclohexyl)- $N^4,N^4$ -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

$N^2$ -(cis-4-{{[1H-indol-3-ylmethyl]amino}methyl}cyclohexyl)- $N^4,N^4$ -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

$N^2$ -(cis-4-{{[2,5-dimethoxybenzyl]amino}methyl}cyclohexyl)- $N^4,N^4$ -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

$N^2$ -(cis-4-({[4-methoxy-1-naphthyl]methyl}amino)methyl)cyclohexyl]- $N^4,N^4$ -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

$N^2$ -[cis-4-({[5-methoxy-1H-indol-3-yl]methyl]amino)methyl}cyclohexyl]- $N^4,N^4$ -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

4-bromo-2-({[cis-4-{{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl]methyl}amino)methyl}-6-methoxyphenol;

$N^2$ -[cis-4-({[5-bromo-1H-indol-3-yl]methyl]amino)methyl}cyclohexyl]- $N^4,N^4$ -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

$N^2$ -(cis-4-{{[3-ethoxy-4-methoxybenzyl]amino}methyl}cyclohexyl)- $N^4,N^4$ -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

$N^4,N^4$ -dimethyl- $N^2$ -(cis-4-{{[3-[4-(trifluoromethyl)phenyl]-1H-pyrazol-4-yl]methyl]amino}methyl}cyclohexyl)-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

$N^4,N^4$ -dimethyl- $N^2$ -(cis-4-{{[3,4,5-trimethoxybenzyl]amino}methyl}cyclohexyl)-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

$N^2$ -(cis-4-{{[3,5-dimethoxybenzyl]amino}methyl}cyclohexyl)- $N^4,N^4$ -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

4-(((cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]amino)methyl)-2-iodo-6-methoxyphenol;

4-(((cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]amino)methyl)-2,6-dimethylphenol;

3-chloro-4-(((cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]amino)methyl)phenol;

N<sup>2</sup>-[cis-4-({[4-(diethylamino)benzyl]amino)methyl}cyclohexyl)-N<sup>4</sup>,N<sup>4</sup>-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

N<sup>2</sup>-(cis-4-(((3,3-diphenylprop-2-en-1-yl)amino)methyl)cyclohexyl)-N<sup>4</sup>,N<sup>4</sup>-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

4-(((cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]amino)methyl)-2-ethoxyphenol;

N<sup>2</sup>-(cis-4-([4-(dimethylamino)-1-naphthyl]methyl)amino)methyl)-cyclohexyl)-N<sup>4</sup>,N<sup>4</sup>-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

N<sup>4</sup>,N<sup>4</sup>-dimethyl-N<sup>2</sup>-(cis-4-((2,4,6-trimethoxybenzyl)amino)methyl)-cyclohexyl)-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

2-bromo-4-chloro-6-(((cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]amino)methyl)phenol;

N<sup>2</sup>-(cis-4-((2,5-diethoxybenzyl)amino)methyl)cyclohexyl)-N<sup>4</sup>,N<sup>4</sup>-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

N<sup>2</sup>-(cis-4-((2,4-diethoxybenzyl)amino)methyl)cyclohexyl)-N<sup>4</sup>,N<sup>4</sup>-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

N<sup>2</sup>-(cis-4-(((3,5-dibromo-2-methoxybenzyl)amino)methyl)cyclohexyl)-N<sup>4</sup>,N<sup>4</sup>-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

N<sup>4</sup>,N<sup>4</sup>-dimethyl-N<sup>2</sup>-(cis-4-((2,4,5-triethoxybenzyl)amino)methyl)-cyclohexyl)-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

N<sup>4</sup>,N<sup>4</sup>-dimethyl-N<sup>2</sup>-(cis-4-((2,4,5-trimethoxybenzyl)amino)methyl)-cyclohexyl)-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

$N^2$ -[cis-4-({[(7-methoxy-1,3-benzodioxol-5-yl)methyl]amino)methyl]-cyclohexyl]- $N^4,N^4$ -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;  
 4-({[(cis-4-{{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]amino)methyl}-2-methylphenol;  
 $N^2$ -(cis-4-{{[4-methoxy-2,5-dimethylbenzyl]amino)methyl}cyclohexyl)- $N^4,N^4$ -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;  
 4-({[(cis-4-{{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]amino)methyl}-2-fluoro-6-methoxyphenol;  
 $N^4,N^4$ -dimethyl- $N^2$ -[cis-4-({[(1-phenyl-5-propyl-1H-pyrazol-4-yl)methyl]amino)methyl}cyclohexyl]-5,6,7,8-tetrahydroquinazoline-2,4-diamine;  
 $N^2$ -{cis-4-({[(1-(4-chlorophenyl)-5-propyl-1H-pyrazol-4-yl)methyl]-amino)methyl}cyclohexyl)- $N^4,N^4$ -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;  
 $N^2$ -{cis-4-[2-(4-bromo-2-trifluoromethoxy-phenyl)-ethylamino]-cyclohexyl}- $N^4,N^4$ -dimethyl-5,6,7,8-tetrahydro-quinazoline-2,4-diamine;  
 $N^2$ -{cis-4-[2-(4-bromo-2-trifluoromethoxy-phenyl)-ethylamino]-cyclohexyl}- $N^4$ -methyl-5,6,7,8-tetrahydro-quinazoline-2,4-diamine;  
 $N^2$ -{cis-4-[(4-bromo-2-trifluoromethoxy-benzyl)amino-methyl]-cyclohexyl}- $N^4$ -methyl-5,6,7,8-tetrahydro-quinazoline-2,4-diamine;  
 $N^2$ -{cis-4-[(4-bromo-2-trifluoromethoxy-benzyl)amino-methyl]-cyclohexyl}- $N^4,N^4$ -dimethyl-5,6,7,8-tetrahydro-quinazoline-2,4-diamine;  
 $N^4,N^4$ -dimethyl- $N^2$ -{cis-4-[(2-trifluoromethoxy-benzyl)amino-methyl]-cyclohexyl}-5,6,7,8-tetrahydro-quinazoline-2,4-diamine; and  
 $N^4$ -methyl- $N^2$ -{cis-4-[(2-trifluoromethoxy-benzyl)amino-methyl]-cyclohexyl}-5,6,7,8-tetrahydro-quinazoline-2,4-diamine;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

35. The compound according to claim 34 selected from the group consisting of:

$N^2$ -(cis-4-(((5-methoxy-1H-indol-3-yl)methyl)amino)cyclohexyl)- $N^4$ , $N^4$ -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

ethyl 4,6-dichloro-3-(((cis-4-([4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino)cyclohexyl)amino)methyl)-1H-indole-2-carboxylate;

$N^2$ -(cis-4-([3-(4-fluorophenyl)-1H-pyrazol-4-yl]methyl)amino)cyclohexyl]- $N^4$ , $N^4$ -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

3-([2-((cis-4-([4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino)cyclohexyl)amino)ethyl](phenyl)amino)propanenitrile;

N-((1S)-1-benzyl-2-((cis-4-([4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino)cyclohexyl)amino)ethyl)-4-methylbenzenesulfonamide;

$N^2$ -(cis-4-([1-(diphenylmethyl)azetidin-3-yl]methyl)amino)cyclohexyl]- $N^4$ , $N^4$ -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

$N^2$ -(cis-4-([(2,6-dimethoxybenzyl)amino]methyl)cyclohexyl)- $N^4$ , $N^4$ -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

$N^2$ -(cis-4-([(5-methoxy-1H-indol-3-yl)methyl]amino)methyl)cyclohexyl]- $N^4$ , $N^4$ -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

$N^2$ -(cis-4-([(5-bromo-1H-indol-3-yl)methyl]amino)methyl)cyclohexyl]- $N^4$ , $N^4$ -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

$N^2$ -(cis-4-([(3-ethoxy-4-methoxybenzyl)amino]methyl)cyclohexyl)- $N^4$ , $N^4$ -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

4-([(cis-4-([4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino)cyclohexyl)methyl]amino)methyl)-2-iodo-6-methoxyphenol;

$N^2$ -(cis-4-([(3,3-diphenylprop-2-en-1-yl)amino]methyl)cyclohexyl)- $N^4$ , $N^4$ -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

$N^4$ , $N^4$ -dimethyl- $N^2$ -(cis-4-([(2,4,6-trimethoxybenzyl)amino]methyl)-cyclohexyl)-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

$N^2$ -(cis-4-([(2,5-diethoxybenzyl)amino]methyl)cyclohexyl)- $N^4$ , $N^4$ -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

$N^2$ -(cis-4-{{(2,4-diethoxybenzyl)amino]methyl}cyclohexyl)- $N^4,N^4$ -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;  
 $N^2$ -(cis-4-{{(3,5-dibromo-2-methoxybenzyl)amino]methyl}cyclohexyl)- $N^4,N^4$ -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;  
 $N^4,N^4$ -dimethyl- $N^2$ -(cis-4-{{(2,4,5-triethoxybenzyl)amino]methyl}-cyclohexyl)-5,6,7,8-tetrahydroquinazoline-2,4-diamine;  
 $N^4,N^4$ -dimethyl- $N^2$ -(cis-4-{{(2,4,5-trimethoxybenzyl)amino]methyl}-cyclohexyl)-5,6,7,8-tetrahydroquinazoline-2,4-diamine;  
 $N^4,N^4$ -dimethyl- $N^2$ -[cis-4-{{(1-phenyl-5-propyl-1H-pyrazol-4-yl)methyl]amino]methyl}cyclohexyl]-5,6,7,8-tetrahydroquinazoline-2,4-diamine;  
 $N^2$ -(cis-4-{{([1-(4-chlorophenyl)-5-propyl-1H-pyrazol-4-yl)methyl]-amino)methyl}cyclohexyl)- $N^4,N^4$ -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;  
 $N^2$ -{cis-4-[2-(4-bromo-2-trifluoromethoxy-phenyl)-ethylamino]-cyclohexyl}- $N^4,N^4$ -dimethyl-5,6,7,8-tetrahydro-quinazoline-2,4-diamine;  
 $N^2$ -{cis-4-[(4-bromo-2-trifluoromethoxy-benzyl)amino-methyl]-cyclohexyl)- $N^4$ -methyl-5,6,7,8-tetrahydro-quinazoline-2,4-diamine;  
 $N^2$ -{cis-4-[(4-bromo-2-trifluoromethoxy-benzyl)amino-methyl]-cyclohexyl)- $N^4,N^4$ -dimethyl-5,6,7,8-tetrahydro-quinazoline-2,4-diamine; and  
 $N^4,N^4$ -dimethyl- $N^2$ -{cis-4-[(2-trifluoromethoxy-benzyl)amino-methyl]-cyclohexyl]-5,6,7,8-tetrahydro-quinazoline-2,4-diamine;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

36. The compound according to claim 29 wherein  $R_1$  is selected from the group consisting of:

- (i)  $C_{1-5}$  alkyl, and  
 $C_{1-5}$  alkyl substituted by substituent(s) independently selected from the group consisting of:
  - oxo,
  - $C_{1-5}$  alkoxy,

- C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,
- C<sub>1-5</sub> alkylcarbonyloxy,
- carbocyclic aryloxy,
- carbocyclic aryloxy substituted by halogen,
- carbocyclic aryloxy substituted by nitro,
- heterocyclyloxy,
- heterocyclyloxy substituted by C<sub>1-5</sub> alkyl,
- mono-C<sub>1-5</sub> alkylaminocarbonyl,
- di-C<sub>1-5</sub> alkylaminocarbonyl,
- carbocyclic arylcarbonylamino,
- C<sub>1-5</sub> alkylthio,
- C<sub>1-5</sub> alkylthio substituted by substituent(s) independently selected from the group consisting of:
  - carbocyclic aryl, and
  - carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
    - halogen, and
    - C<sub>1-5</sub> alkoxy,
- carbocyclic arylthio,
- heterocyclylthio,
- heterocyclylthio substituted by C<sub>1-5</sub> alkyl,
- C<sub>3-6</sub> cycloalkyl,
- C<sub>3-6</sub> cycloalkenyl,
- carbocyclyl,
- carbocyclyl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - C<sub>1-5</sub> alkyl,



- C<sub>1-5</sub> alkoxy,
- C<sub>2-5</sub> alkenyl, and
- C<sub>2-5</sub> alkenyl substituted by substituent(s) independently selected from the group consisting of:
  - carbocyclic aryl, and
  - carbocyclic aryl substituted by C<sub>1-5</sub> alkylsulfinyl,
- carbocyclic aryl,
- carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - hydroxy,
  - nitro,
  - C<sub>1-5</sub> alkyl,
  - C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:
    - oxo,
    - carbocyclic aryl, and
    - heterocyclyl,
  - C<sub>1-5</sub> alkoxy,
  - C<sub>1-5</sub> alkoxy substituted by halogen,
  - C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,
  - carbocyclic aryloxy,
  - mone-carbocyclic arylaminocarbonyl,
  - mono-carbocyclic arylaminocarbonyl substituted by halogen,
  - di-carbocyclic arylaminocarbonyl,
  - di-carbocyclic arylaminocarbonyl substituted by halogen,
  - carbocyclic aryl, and
  - heterocyclyl,

•heterocyclyl, and

•heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

°C<sub>1-5</sub> alkyl,

°C<sub>1-5</sub> alkoxy,

°C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,

••carbocyclic aryl, and

°•carbocyclic aryl substituted by halogen,

(ii) C<sub>2-5</sub> alkenyl, and

C<sub>2-5</sub> alkenyl substituted by substituent(s) independently selected from the group consisting of:

•carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

••halogen, and

••nitro,

(iii) C<sub>3-6</sub> cycloalkyl, and

C<sub>3-6</sub> cycloalkyl substituted by substituent(s) independently selected from the group consisting of:

•C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

••oxo, and

••carbocyclic aryl,

°carbocyclic aryl,

(iv) carbocyclyl,

(v) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•hydroxy,

•cyano,

•nitro,

•C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••oxo,

••carbocyclic aryloxy,

••carbocyclic aryl, and

••carbocyclic aryl substituted by C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkoxy,

•C<sub>1-5</sub> alkoxy substituted by substituent(s) independently selected from the group consisting of:

••halogen, and

••carbocyclic aryl,

•carbocyclic aryloxy,

•carbocyclic aryloxy substituted by C<sub>1-5</sub> alkoxy,

•mono-C<sub>1-5</sub> alkylaminocarbonyl,

•di-C<sub>1-5</sub> alkylaminocarbonyl,

•mono-C<sub>1-5</sub> alkylaminocarbonyl substituted by carbocyclic aryl,

•di-C<sub>1-5</sub> alkylaminocarbonyl substituted by carbocyclic aryl,

•amino,

•mono-C<sub>1-5</sub> alkylamino,

•di-C<sub>1-5</sub> alkylamino,

- C<sub>2-5</sub> alkynylcarbonylamino,
  - C<sub>2-5</sub> alkynylcarbonylamino substituted by carbocyclic aryl,
  - (carbocyclic aryl)NHC(O)NH,
  - (carbocyclic aryl)NHC(O)NH substituted by C<sub>1-5</sub> alkoxy,
  - (carbocyclic aryl)NHC(O)NH substituted by halogenated C<sub>1-5</sub> alkoxy,
  - C<sub>1-5</sub> alkylthio,
  - C<sub>1-5</sub> alkylthio substituted by halogen,
  - carbocyclic arylthio,
  - carbocyclic arylthio substituted by cyano,
  - mono-C<sub>1-5</sub> alkylaminosulfonyl,
  - di-C<sub>1-5</sub> alkylaminosulfonyl,
  - carbocyclic aryl,
  - heterocyclyl,
  - heterocyclyl substituted by substituent(s) independently selected from the group consisting of:
    - C<sub>1-5</sub> alkyl,
    - carbocyclic aryl, and
    - halogenated carbocyclic aryl,
- (vi) heterocyclyl, and
- heterocyclyl substituted by substituent(s) independently selected from the group consisting of:
- halogen,
  - nitro,
  - C<sub>1-5</sub> alkyl,
  - C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:
    - halogen,
    - C<sub>1-5</sub> alkylthio,

- C<sub>1-5</sub> alkylthio substituted by carbocyclic aryl,
- C<sub>1-5</sub> alkylthio substituted by halogenated carbocyclic aryl,
- carbocyclic aryl,
- carbocyclic aryl substituted by halogen, and
- heterocyclyl,
- C<sub>1-5</sub> alkoxy,
- carbocyclic aryloxy,
- carbocyclic aryloxy substituted by C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkylthio,
- C<sub>2-5</sub> alkenylthio,
- carbocyclic arylthio,
- C<sub>1-5</sub> alkylsulfonyl,
- carbocyclic arylsulfonyl,
- carbocyclic arylsulfonyl substituted by C<sub>1-5</sub> alkyl,
- carbocyclic aryl,
- carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- halogen,
- nitro, and
- C<sub>1-5</sub> alkyl,
- heterocyclyl;

L is Formula (VII);

Y is -C(O)-;

wherein carbocyclic aryl is phenyl, naphthyl, or anthranyl;

carbocyclyl is 1,2,3,4-tetrahydronaphthyl, 1-oxo-indanyl, 9-oxo-9H-

fluorenyl, or indenyl;

heterocyclyl is 1,2,3-triazolyl, 1H-indolyl, 1H-pyrrolyl, 2,3-dihydro-1-

oxo-isindolyl, 2,4-dihydro-3-oxo-pyrazolyl, 2H-benzopyranyl, 2-oxo-

benzopyranyl, 4-oxo-1,5,6,7-tetrahydro-indolyl, 9H-xanthenyl, benzo[1,3]dioxolyl, benzo[2,1,3]oxadiazolyl, benzo[1,2,5]oxadiazolyl, benzo[b]thienyl, benzofuryl, benzothiazolyl, furyl, isoxazolyl, morpholino, pyrazolyl, pyridyl, pyrimidyl, quinolyl, quinoxalyl, thiazolyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

37. The compound according to claim 36 wherein R<sub>2</sub> is methylamino or dimethylamino; p is 0; R<sub>3</sub> and R<sub>4</sub> are hydrogen; A is a single bond; B is a single bond or -CH<sub>2</sub>-; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

38. The compound according to claim 37 wherein R<sub>1</sub> is selected from the group consisting of:

(i) C<sub>1-5</sub> alkyl, and

C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•oxo,

•C<sub>1-5</sub> alkoxy,

•C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,

•C<sub>1-5</sub> alkylcarbonyloxy,

•carbocyclic aryloxy,

•carbocyclic aryloxy substituted by halogen,

•mono-C<sub>1-5</sub> alkylaminocarbonyl,

•di-C<sub>1-5</sub> alkylaminocarbonyl,

•carbocyclic arylcarbonylamino,

•C<sub>1-5</sub> alkylthio,

•C<sub>1-5</sub> alkylthio substituted by substituent(s) independently selected from the group consisting of:

••carbocyclic aryl, and

- carbocyclic aryl substituted by halogen,
- heterocyclithio,
- heterocyclithio substituted by C<sub>1-5</sub> alkyl,
- C<sub>3-6</sub> cycloalkyl,
- carbocyclyl,
- carbocyclyl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - C<sub>1-5</sub> alkyl,
  - C<sub>2-5</sub> alkenyl, and
  - C<sub>2-5</sub> alkenyl substituted by substituent(s) independently selected from the group consisting of:
    - carbocyclic aryl, and
    - carbocyclic aryl substituted by C<sub>1-5</sub> alkylsulfinyl,
- carbocyclic aryl,
- carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - hydroxy,
  - nitro,
  - C<sub>1-5</sub> alkyl,
  - C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:
    - oxo, and
    - heterocyclyl,
  - C<sub>1-5</sub> alkoxy,
  - carbocyclic aryloxy,
  - carbocyclic aryl, and

- heterocyclyl,
  - heterocyclyl, and
  - heterocyclyl substituted by substituent(s) independently selected from the group consisting of:
    - C<sub>1-5</sub> alkyl,
    - C<sub>1-5</sub> alkoxy, and
    - carbocyclic aryl,
- (ii) C<sub>2-5</sub> alkenyl, and  
C<sub>2-5</sub> alkenyl substituted by substituent(s) independently selected from the group consisting of:
  - carbocyclic aryl, and
  - carbocyclic aryl substituted by nitro,
- (iii) C<sub>3-6</sub> cycloalkyl, and  
C<sub>3-6</sub> cycloalkyl substituted by carbocyclic aryl,
- (iv) carbocyclyl,
- (v) carbocyclic aryl, and  
carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - hydroxy,
  - cyano,
  - nitro,
  - C<sub>1-5</sub> alkyl,
  - C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:
    - halogen,
    - oxo, and
    - carbocyclic aryl,



- C<sub>1-3</sub> alkoxy,
- C<sub>1-3</sub> alkoxy substituted by substituent(s) independently selected from the group consisting of:
  - halogen, and
  - carbocyclic aryl,
- carbocyclic aryloxy,
- carbocyclic aryloxy substituted by C<sub>1-3</sub> alkoxy,
- mono-C<sub>1-3</sub> alkylaminocarbonyl,
- di-C<sub>1-3</sub> alkylaminocarbonyl,
- mono-C<sub>1-3</sub> alkylaminocarbonyl substituted by carbocyclic aryl,
- di-C<sub>1-3</sub> alkylaminocarbonyl substituted by carbocyclic aryl,
- mono-C<sub>1-3</sub> alkylamino,
- di-C<sub>1-3</sub> alkylamino,
- C<sub>2-3</sub> alkynylcarbonylamino,
- C<sub>2-3</sub> alkynylcarbonylamino substituted by carbocyclic aryl,
- (carbocyclic aryl)NHC(O)NH,
- (carbocyclic aryl)NHC(O)NH substituted by C<sub>1-3</sub> alkoxy, and
- (carbocyclic aryl)NHC(O)NH substituted by halogenated C<sub>1-3</sub> alkoxy,

(vi) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- halogen,
- nitro,
- C<sub>1-3</sub> alkyl,
- C<sub>1-3</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - C<sub>1-3</sub> alkylthio,

••C<sub>1-5</sub> alkylthio substituted by carbocyclic aryl,  
 ••C<sub>1-5</sub> alkylthio substituted by halogenated carbocyclic aryl,  
 ••carbocyclic aryl, and  
 ••heterocyclyl,  
 •carbocyclic aryloxy,  
 •carbocyclic aryloxy substituted by C<sub>1-5</sub> alkyl,  
 •C<sub>1-5</sub> alkylthio,  
 •carbocyclic aryl,  
 •carbocyclic aryl substituted by substituent(s) independently selected from  
 the group consisting of:  
 ••halogen,  
 ••nitro, and  
 ••C<sub>1-5</sub> alkyl,  
 •heterocyclyl;  
 wherein carbocyclic aryl is phenyl;  
 carbocyclyl is 1-oxo-indanyl or indenyl;  
 heterocyclyl is 1,2,3-triazolyl, 1*H*-indolyl, 1*H*-pyrrolyl, 2,3-dihydro-1-  
 oxo-isindolyl, 2-oxo-benzopyranyl, benzo[2,1,3]oxadiazolyl,  
 benzo[1,2,5]oxadiazolyl, furyl, isoxazolyl, morpholino, pyrazolyl, pyridyl,  
 pyrimidyl, quinolyl, quinoxalyl, thiazolyl, or thienyl;  
 halogen is fluoro, chloro, bromo, or iodo;  
 or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

39. The compound according to claim 38 wherein R<sub>1</sub> is selected from the group consisting of:

- (i) C<sub>1-5</sub> alkyl, and  
 C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the  
 group consisting of:  
 •oxo,

- C<sub>1-5</sub> alkylcarbonyloxy,
- carbocyclic aryloxy,
- carbocyclic aryloxy substituted by halogen,
- mono-C<sub>1-5</sub> alkylaminocarbonyl,
- di-C<sub>1-5</sub> alkylaminocarbonyl,
- carbocyclic arylcarbonylamino,
- carbocyclyl,
- carbocyclyl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - C<sub>1-5</sub> alkyl,
  - C<sub>2-5</sub> alkenyl, and
  - C<sub>2-5</sub> alkenyl substituted by substituent(s) independently selected from the group consisting of:
    - carbocyclic aryl, and
    - carbocyclic aryl substituted by C<sub>1-5</sub> alkylsulfinyl,
- carbocyclic aryl,
- carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - hydroxy,
  - nitro,
  - C<sub>1-5</sub> alkyl, and
  - C<sub>1-5</sub> alkoxy,
- heterocyclyl, and
- heterocyclyl substituted by substituent(s) independently selected from the group consisting of:
  - C<sub>1-5</sub> alkyl,

••C<sub>1-5</sub> alkoxy, and

••carbocyclic aryl,

(ii) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•hydroxy,

•cyano,

•nitro,

•C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

••halogen, and

••oxo,

•C<sub>1-5</sub> alkoxy,

•C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,

•carbocyclic aryloxy,

•carbocyclic aryloxy substituted by C<sub>1-5</sub> alkoxy,

•mono-C<sub>1-5</sub> alkylaminocarbonyl,

•di-C<sub>1-5</sub> alkylaminocarbonyl,

•mono-C<sub>1-5</sub> alkylaminocarbonyl substituted by carbocyclic aryl,

•di-C<sub>1-5</sub> alkylaminocarbonyl substituted by carbocyclic aryl,

•C<sub>2-5</sub> alkynylcarbonylamino,

•C<sub>2-5</sub> alkynylcarbonylamino substituted by carbocyclic aryl,

•(carbocyclic aryl)NHC(O)NH,

•(carbocyclic aryl)NHC(O)NH substituted by C<sub>1-5</sub> alkoxy, and

•(carbocyclic aryl)NHC(O)NH substituted by halogenated C<sub>1-5</sub> alkoxy,

(iii) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

\*halogen,

\*nitro,

\*C<sub>1-5</sub> alkyl,

\*C<sub>1-5</sub> alkyl substituted by halogen,

\*C<sub>1-5</sub> alkyl substituted by heterocyclyl,

\*carbocyclic aryloxy,

\*carbocyclic aryloxy substituted by C<sub>1-5</sub> alkyl,

\*C<sub>1-5</sub> alkylthio,

\*carbocyclic aryl,

\*carbocyclic aryl substituted by halogen, and

\*carbocyclic aryl substituted by nitro;

wherein carbocyclic aryl is phenyl;

carbocyclyl is indenyl;

heterocyclyl is 1*H*-indolyl, 1*H*-pyrrolyl, 2-oxo-benzopyranyl,

benzo[2,1,3]oxadiazolyl, benzo[1,2,5]oxadiazolyl, furyl, isoxazolyl, morpholino, pyridyl, quinoxalyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

40. The compound according to claim 1 selected from the group consisting of:

N-(cis-4-{{4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl}amino}-cyclohexyl)-3-methoxybenzamide;

3-bromo-N-(cis-4-{{4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl}amino}cyclohexyl)benzamide;

4-bromo-N-(cis-4-{{4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl}amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2,1,3-benzoxadiazole-5-carboxamide;

3-chloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)benzamide;

4-chloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)benzamide;

4-chloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-3-nitrobenzamide;

2-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)acetamide;

3-cyano-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)benzamide;

3,5-dichloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)benzamide;

3,4-dichloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2,2-diphenylacetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3,4-difluorobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3,5-difluorobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-4-fluorobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-fluoro-5-(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)hexanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-4-methyl-3-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-nitrobenzamide;

(2R)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-phenylcyclopropanecarboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-phenoxybutanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-phenoxypropanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-4-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-(trifluoromethoxy)benzamide;

4-bromo-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-3-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-iodobenzamide;

2-chloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-4-fluorobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(3-methoxyphenyl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(4-fluorophenyl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(4-methoxyphenyl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-5-methyl-2-(trifluoromethyl)-3-furamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2,5-dimethyl-3-furamide;

3-chloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-4-fluorobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-fluoro-4-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3,5-dimethoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3,5-bis(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-4-fluoro-3-methylbenzamide;

2,5-dichloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiophene-3-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(propylthio)nicotinamide;

1-benzyl-3-tert-butyl-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-1H-pyrazole-5-carboxamide;

5-bromo-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)nicotinamide;

2-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)amino]-2-oxo-1-phenylethyl acetate;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)benzamide;

2-(benzyloxy)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)acetamide;



2-(4-chlorophenoxy)-N-(cis-4-{{4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl}amino}cyclohexyl)acetamide;

3-(2-chlorophenyl)-N-(cis-4-{{4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl}amino}cyclohexyl)-5-methylisoxazole-4-carboxamide;

1-(4-chlorophenyl)-N-(cis-4-{{4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl}amino}cyclohexyl)cyclopentanecarboxamide;

3-(2-chloro-6-fluorophenyl)-N-(cis-4-{{4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl}amino}cyclohexyl)-5-methylisoxazole-4-carboxamide;

N-(cis-4-{{4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl}amino}-cyclohexyl)-1,3-dimethyl-1H-pyrazole-5-carboxamide;

N-(cis-4-{{4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl}amino}-cyclohexyl)-3-fluorobenzamide;

N-(cis-4-{{4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl}amino}-cyclohexyl)-4-fluoro-3-(trifluoromethyl)benzamide;

N-(cis-4-{{4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl}amino}-cyclohexyl)-5-methyl-2-phenyl-2H-1,2,3-triazole-4-carboxamide;

N-(cis-4-{{4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl}amino}-cyclohexyl)-2-(4-methoxyphenoxy)-5-nitrobenzamide;

N-(cis-4-{{4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl}amino}-cyclohexyl)-5-nitro-2-furamide;

N-(cis-4-{{4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl}amino}-cyclohexyl)-2-phenoxyacetamide;

N-(cis-4-{{4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl}amino}-cyclohexyl)quinoxaline-2-carboxamide;

N-(cis-4-{{4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl}amino}-cyclohexyl)-3-(trifluoromethyl)benzamide;

2-(3-chlorophenoxy)-N-(cis-4-{{4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl}amino}cyclohexyl)acetamide;

3-(2,6-dichlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-5-methylisoxazole-4-carboxamide;  
N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-phenoxy nicotinamide;  
N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(4-methylphenoxy)nicotinamide;  
N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(2-thienyl)-1,3-thiazole-4-carboxamide;  
5-bromo-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiophene-2-carboxamide;  
N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(2,3,6-trichlorophenyl)acetamide;  
2-(2-chloro-4-fluorophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)acetamide;  
5-(4-chloro-2-nitrophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-furamide;  
5-chloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiophene-2-carboxamide;  
N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2,3-diphenylpropanamide;  
N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-(2-hydroxyphenyl)propanamide;  
N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-5-iodo-2-furamide;  
N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(2-iodophenyl)acetamide;  
N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(5-methoxy-2-methyl-1H-indol-3-yl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-oxoindane-1-carboxamide;

2-benzyl-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)benzamide;

2,2-bis(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-5-(4-methyl-2-nitrophenyl)-2-furamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-5-nitrothiophene-2-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-methyl-4-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-methoxy-4-nitrobenzamide;

3-acetyl-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)benzamide;

5-bromo-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-furamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-[(4-methylpyrimidin-2-yl)thio]acetamide;

5-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-furamide;

2-(3,4-dichlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(4-hydroxy-3,5-dimethoxyphenyl)acetamide;

4,5-dibromo-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiophene-2-carboxamide;

N<sup>2</sup>,N<sup>6</sup>-dibenzoyl-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)lysineamide;

3-(dimethylamino)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)benzamide;

4,5-dibromo-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-furamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-4-(4-fluorophenyl)-4-oxobutanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(2-fluorobiphenyl-4-yl)propanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-[4-(1-oxo-1,3-dihydro-2H-isoindol-2-yl)phenyl]propanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(1H-indol-3-yl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(7-methoxy-2-oxo-2H-chromen-4-yl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(1H-indol-3-yl)-4-oxo-4-phenylbutanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3,5-dimethyl-2-({[4-(trifluoromethoxy)phenyl]amino}carbonyl)amino-benzamide;

3,5-dichloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-[(3-phenylprop-2-ynoyl)amino]benzamide;

4-(4-tert-butylphenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-(7-ethyl-1H-indol-3-yl)-4-oxobutanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(1-methyl-1H-indol-3-yl)-4-(4-methylphenyl)-4-oxobutanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-methyl-1-(3-morpholin-4-ylpropyl)-5-phenyl-1H-pyrrole-3-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-4-(4-nitrophenyl)butanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(3-phenoxyphenyl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(4-phenoxyphenyl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(2-phenyl-1H-indol-3-yl)acetamide;

N<sup>2</sup>-benzoyl-N<sup>5</sup>-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-N<sup>1</sup>,N<sup>1</sup>-dipropylglutamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-phenoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(ethylthio)-2,2-diphenylacetamide;

N<sup>4</sup>-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N,N-bis[(1S)-1-phenylethyl]phthalamide;

(2S)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-(2-fluorobiphenyl-4-yl)propanamide;

2-[(4-chlorobenzyl)thio]-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-4-(4-methylphenyl)-4-oxobutanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-[(1E)-5-fluoro-2-methyl-1-[4-(methylsulfinyl)benzylidene]-1H-inden-3-yl]acetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-[4-(2-thienylcarbonyl)phenyl]propanamide;

3-(benzyloxy)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-4-methoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-methyl-1,5-diphenyl-1H-pyrrole-3-carboxamide;

1-{2-[(2-chloro-6-fluorobenzyl)thio]ethyl}-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-methyl-5-phenyl-1H-pyrrole-3-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-phenoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-phenylquinoline-4-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-5-(3-nitrophenyl)-2-furamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-5-nitrothiophene-3-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-1-methyl-4-nitro-1H-pyrrole-2-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-methoxy-4-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-methoxy-2-phenylacetamide;

5-chloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-hydroxybenzamide;

3-bromo-N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]benzamide;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-2-(ethylthio)nicotinamide;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-2-(4-methoxyphenyl)acetamide;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-5-methyl-2-(trifluoromethyl)-3-furamide;

(2E)-N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]-3-(4-nitrophenyl)acrylamide;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-4-fluoro-3-methylbenzamide;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-2-(propylthio)nicotinamide;

2,6-dichloro-N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]benzamide;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-2,4,6-trimethylbenzamide;

2-chloro-N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]-6-fluorobenzamide;

2,4,6-trichloro-N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]benzamide;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-2-(2,3,6-trichlorophenyl)acetamide;

(2E)-N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]-3-(3-nitrophenyl)acrylamide; and

N-[cis-4-(4-dimethylamino-5,6,7,8-tetrahydro-quinazolin-2-ylamino)-cyclohexylmethyl]-3,4-difluoro-benzamide;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

41. The compound according to claim 40 selected from the group consisting of:

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-methoxybenzamide;

3-bromo-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2,1,3-benzoxadiazole-5-carboxamide;

3-chloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)benzamide;

4-chloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)benzamide;

4-chloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-3-nitrobenzamide;

2-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)acetamide;

3-cyano-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)benzamide;

3,5-dichloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)benzamide;

3,4-dichloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2,2-diphenylacetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3,4-difluorobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3,5-difluorobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-4-fluorobenzamide;



N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-fluoro-5-(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-4-methyl-3-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-phenoxybutanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-phenoxypropanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-iodobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(4-fluorophenyl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2,5-dimethyl-3-furamide;

3-chloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-4-fluorobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3,5-dimethoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3,5-bis(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-4-fluoro-3-methylbenzamide;

2,5-dichloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiophene-3-carboxamide;

5-bromo-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)nicotinamide;

2-[[cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl]amino]-2-oxo-1-phenylethyl acetate;

3-(2-chloro-6-fluorophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-5-methylisoxazole-4-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-fluorobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-4-fluoro-3-(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(4-methoxyphenoxy)-5-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-5-nitro-2-furamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-phenoxyacetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)quinoxaline-2-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-(trifluoromethyl)benzamide;

2-(3-chlorophenoxy)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)acetamide;

3-(2,6-dichlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-5-methylisoxazole-4-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(4-methylphenoxy)nicotinamide;

2-(2-chloro-4-fluorophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)acetamide;

- 5-(4-chloro-2-nitrophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-furamide;
- 5-chloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiophene-2-carboxamide;
- N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-5-iodo-2-furamide;
- 2,2-bis(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)acetamide;
- N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-5-nitrothiophene-2-carboxamide;
- N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-3-methyl-4-nitrobenzamide;
- N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-3-methoxy-4-nitrobenzamide;
- 3-acetyl-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)benzamide;
- 5-bromo-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-furamide;
- 5-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-furamide;
- 2-(3,4-dichlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)acetamide;
- N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-(4-hydroxy-3,5-dimethoxyphenyl)acetamide;
- 4,5-dibromo-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-furamide;
- N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-(1H-indol-3-yl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(7-methoxy-2-oxo-2H-chromen-4-yl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3,5-dimethyl-2-[[{4-(trifluoromethoxy)phenyl]amino}carbonyl]amino]-benzamide;

3,5-dichloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-[(3-phenylprop-2-ynoyl)amino]benzamide;

4-(4-tert-butylphenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-(7-ethyl-1H-indol-3-yl)-4-oxobutanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-methyl-1-(3-morpholin-4-ylpropyl)-5-phenyl-1H-pyrrole-3-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-4-(4-nitrophenyl)butanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(2-phenyl-1H-indol-3-yl)acetamide;

N<sup>2</sup>-benzoyl-N<sup>5</sup>-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-N<sup>1</sup>,N<sup>1</sup>-dipropylglutamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-phenoxybenzamide;

N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N,N-bis[(1S)-1-phenylethyl]phthalamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-[(1E)-5-fluoro-2-methyl-1-[4-(methylsulfinyl)benzylidene]-1H-inden-3-yl]acetamide;

3-(benzyloxy)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-4-methoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-phenoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-5-nitrothiophene-3-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-1-methyl-4-nitro-1H-pyrrole-2-carboxamide;

5-chloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-hydroxybenzamide;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-2-(ethylthio)nicotinamide;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-2-(4-methoxyphenyl)acetamide;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-5-methyl-2-(trifluoromethyl)-3-furamide;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-2-(propylthio)nicotinamide; and

2,4,6-trichloro-N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]benzamide;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

42. The compound according to claim 29 wherein R<sub>1</sub> is selected from the group consisting of:

(i) C<sub>1-5</sub> alkyl, and

C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•oxo,

•C<sub>1-5</sub> alkoxy carbonyl,

•carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

••halogen,

- C<sub>1-5</sub> alkyl,
- C<sub>2-5</sub> alkenyl, and
- C<sub>1-5</sub> alkoxy,
- C<sub>1-5</sub> alkylthio, and
- heterocyclyl,
- (ii) C<sub>3-6</sub> cycloalkyl, and
- C<sub>3-6</sub> cycloalkyl substituted by carbocyclic aryl,
- (iii) carbocyclyl,
- (iv) carbocyclic aryl, and
- carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - cyano,
  - nitro,
  - C<sub>1-5</sub> alkyl,
  - C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:
    - halogen,
    - oxo, and
    - carbocyclic aryl,
  - C<sub>1-5</sub> alkoxy carbonyl,
  - C<sub>1-7</sub> alkoxy,
  - C<sub>1-7</sub> alkoxy substituted by substituent(s) independently selected from the group consisting of:
    - halogen, and
    - carbocyclic aryl,
  - C<sub>3-6</sub> cycloalkoxy,
  - carbocyclic aryloxy,

- mono-C<sub>1-5</sub> alkylamino,
- di-C<sub>1-5</sub> alkylamino,
- C<sub>1-5</sub> alkylthio,
- C<sub>1-5</sub> alkylthio substituted by halogen, and
- carbocyclic aryl,

(v) heterocyclyl, and  
heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- halogen,
- C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkyl substituted by halogen,
- C<sub>1-5</sub> alkoxy carbonyl
- C<sub>1-5</sub> alkoxy carbonyl substituted by carbocyclic aryl, and
- carbocyclic aryl;

L is Formula (VII);

Y is -C(O)NR<sub>5</sub>;

wherein carbocyclic aryl is phenyl or naphthyl;

carbocyclyl is indanyl, adamantyl, or 9H-fluorenyl;

heterocyclyl is 2,3-dihydro-benzo[1,4]dioxinyl, 3,4-dihydro-2H-benzo[b][1,4]dioxepinyl, 4H-benzo[1,3]dioxinyl, benzo[1,3]dioxolyl, furyl, isoxazolyl, piperidyl, pyridyl, or thienyl;

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

43. The compound according to claim 42 wherein R<sub>2</sub> is methylamino or dimethylamino; p is 0; R<sub>3</sub> and R<sub>4</sub> are hydrogen; A is a single bond; B is a single bond or -CH<sub>2</sub>-; R<sub>5</sub> is hydrogen; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

44. The compound according to claim 43 wherein R<sub>1</sub> is selected from the group consisting of:

- (i) C<sub>1-5</sub> alkyl, and  
C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:
  - C<sub>1-5</sub> alkoxy carbonyl,
  - carbocyclic aryl, and
  - carbocyclic aryl substituted by halogen,
- (ii) carbocyclic aryl, and  
carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - nitro,
  - C<sub>1-5</sub> alkyl,
  - C<sub>1-5</sub> alkyl substituted by halogen,
  - C<sub>1-5</sub> alkoxy, and
  - C<sub>1-5</sub> alkoxy substituted by halogen,
- (iii) heterocyclyl, and  
heterocyclyl substituted by C<sub>1-5</sub> alkyl, and  
heterocyclyl substituted by carbocyclic aryl;  
wherein carbocyclic aryl is phenyl or naphthyl;  
heterocyclyl is isoxazolyl;  
halogen is fluoro, chloro, bromo, or iodo;  
or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

45. The compound according to claim 1 selected from the group consisting of:

N-(cis-4-{{4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl}amino}-cyclohexyl)-N'-(2-ethyl-6-methylphenyl)urea;



N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(4-fluorophenyl)urea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-mesitylurea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(2,4,6-trichlorophenyl)urea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(2,4,6-tribromophenyl)urea;

N-(2,4-dibromo-6-fluorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)urea;

N-(2,6-diethylphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)urea;

N-(2-chlorobenzyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)urea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(2-ethyl-6-isopropylphenyl)urea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(2-ethylphenyl)urea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(2-isopropyl-6-methylphenyl)urea;

N-(2-tert-butyl-6-methylphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)urea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(diphenylmethyl)urea;

N-(4-bromo-2,6-dimethylphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)urea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(3-methyl-5-phenylisoxazol-4-yl)urea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-1-naphthylurea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-[1-(1-naphthyl)ethyl]urea;

N-(2,4-dibromophenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)urea;

N-(2,4-dichlorobenzyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)urea;

N-(2,4-dimethoxyphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)urea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(2-ethoxyphenyl)urea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(2-fluorobenzyl)urea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(3,4,5-trimethoxyphenyl)urea;

N-(3,4-dimethoxyphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)urea;

N-(4-chloro-2-methylphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)urea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(4-fluorobenzyl)urea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(4-methoxy-2-methylphenyl)urea;

N-(5-chloro-2,4-dimethoxyphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)urea;

N-[1-(4-bromophenyl)ethyl]-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)urea;

N-(4-bromo-2-methylphenyl)-N'-(cis-4-{{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl}urea;

N-(cis-4-{{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-N'-(5-methyl-3-phenylisoxazol-4-yl)urea;

N-(2,3-dichlorophenyl)-N'-(cis-4-{{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl}urea;

N-(cis-4-{{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-N'-(4-methylphenyl)urea;

N-(2,6-diisopropylphenyl)-N'-(cis-4-{{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl}urea;

N-(cis-4-{{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-N'-(2,4,5-trichlorophenyl)urea;

N-(2,5-dimethoxyphenyl)-N'-(cis-4-{{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl}urea;

N-(4-bromo-2-chlorophenyl)-N'-(cis-4-{{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl}urea;

N-(cis-4-{{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-N'-(2-(trifluoromethoxy)phenyl)urea;

N-[(cis-4-{{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]-N'-(2,6-dimethylphenyl)urea;

N-(2,4-difluorophenyl)-N'-[(cis-4-{{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]urea;

N-[(cis-4-{{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]-N'-(2-ethyl-6-methylphenyl)urea;

ethyl N-({[(cis-4-{{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]amino}carbonyl)leucinate;

N-[(cis-4-{{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]-N'-(4-fluorophenyl)urea;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-N'-mesitylurea;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-N'-(2,4,6-trichlorophenyl)urea;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-N'-(2,4,6-tribromophenyl)urea;

N-(2,6-diethylphenyl)-N'-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]urea;

N-[2-chloro-6-(trifluoromethyl)phenyl]-N'-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]urea;

N-(2-chloro-6-methylphenyl)-N'-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]urea;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-N'-(2-ethyl-6-isopropylphenyl)urea;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-N'-(2-isopropyl-6-methylphenyl)urea;

N-(2-tert-butyl-6-methylphenyl)-N'-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]urea;

N-(2-tert-butylphenyl)-N'-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]urea;

N-(3-chloro-2-methylphenyl)-N'-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]urea;

N-(4-bromo-2,6-dimethylphenyl)-N'-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]urea;

N-(2,6-diisopropylphenyl)-N'-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]urea;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-N'-(2,3-dimethyl-6-nitrophenyl)urea;

N-(2,6-dibromo-4-fluorophenyl)-N'-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]urea;

N-(2,6-dichlorophenyl)-N'-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]urea; and

1-(2,3-dichloro-phenyl)-3-[cis-4-(4-dimethylamino-5,6,7,8-tetrahydro-quinazolin-2-ylamino)-cyclohexylmethyl]-urea;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

46. The compound according to claim 29 wherein R<sub>1</sub> is selected from the group consisting of:

- (i) C<sub>1-8</sub> alkyl, and  
C<sub>1-8</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:
  - mono-C<sub>1-5</sub> alkylamino,
  - di-C<sub>1-5</sub> alkylamino,
  - C<sub>3-6</sub> cycloalkyl,
  - C<sub>3-6</sub> cycloalkenyl,
  - carbocyclic aryl,
  - carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
    - halogen,
    - C<sub>1-5</sub> alkyl, and
    - C<sub>1-5</sub> alkoxy,
  - heterocyclyl,
- (ii) C<sub>2-5</sub> alkynyl,
- (iii) C<sub>2-5</sub> alkenyl,
- (iv) C<sub>3-12</sub> cycloalkyl,
- (v) carbocyclyl,
- (vi) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•cyano,

•nitro,

•C<sub>1-10</sub> alkyl,

•C<sub>1-10</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

••halogen, and

••oxo,

•carboxy,

•C<sub>1-5</sub> alkoxy carbonyl,

•C<sub>1-5</sub> alkoxy,

•C<sub>1-5</sub> alkoxy substituted by substituent(s) independently selected from the group consisting of:

••halogen, and

••carbocyclic aryl,

•carbocyclic aryloxy,

•carbocyclic aryloxy substituted by nitro,

•mono-C<sub>1-5</sub> alkylamino,

•di-C<sub>1-3</sub> alkylamino,

•C<sub>1-5</sub> alkoxy carbonylamino,

•carbocyclic aryl azo,

•carbocyclic aryl azo substituted by substituent(s) independently selected from the group consisting of:

••mono-C<sub>1-5</sub> alkylamino, and

••di-C<sub>1-5</sub> alkylamino,

•C<sub>1-5</sub> alkylthio,

- C<sub>1-5</sub> alkylthio substituted by halogen,
- carbocyclic arylthio,
- carbocyclic arylthio substituted by nitro,
- amino sulfonyl,
- heterocyclyl sulfonyl,
- C<sub>3-6</sub> cycloalkyl,
- C<sub>3-6</sub> cycloalkyl substituted by C<sub>1-5</sub> alkyl,
- carbocyclic aryl, and
- heterocyclyl,

(vii) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkoxy carbonyl,
- carbocyclic aryloxy,
- carbocyclic aryl, and
- heterocyclyl;

L is Formula (VII);

Y is -C(S)NR<sub>5</sub>;

wherein carbocyclic aryl is phenyl or naphthyl;

carbocyclyl is indanyl, bicyclo[2.2.1]heptyl, bicyclo[2.2.1]heptenyl, or adamantly;

heterocyclyl is 2,3-dihydro-benzo[1,4]dioxinyl, 4,5,6,7-tetrahydro-benzo[b]thienyl, benzo[1,3]dioxolyl, benzo[2,1,3]thiadiazolyl, furyl, isoxazolyl, morpholinyl, oxazolyl, phenanthro[9,10-d]oxazolyl, piperidyl, pyrazolyl, pyridyl, tetrahydrofuryl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

47. The compound according to claim 46 wherein  $R_2$  is methylamino or dimethylamino;  $p$  is 0;  $R_3$  and  $R_4$  are hydrogen;  $A$  is a single bond;  $B$  is a single bond or  $-CH_2-$ ;  $R_5$  is hydrogen; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
48. The compound according to claim 47 wherein  $R_1$  is selected from the group consisting of:
- (i)  $C_{1-5}$  alkyl, and  
 $C_{1-5}$  alkyl substituted by carbocyclic aryl,
  - (ii) carbocyclic aryl, and  
 carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
    - halogen,
    - $C_{1-5}$  alkyl,
    - $C_{1-5}$  alkyl substituted by halogen,
    - $C_{1-5}$  alkoxy,
    - $C_{1-5}$  alkoxy substituted by halogen,
    - mono- $C_{1-5}$  alkylamino, and
    - di- $C_{1-5}$  alkylamino;
 wherein carbocyclic aryl is phenyl or naphthyl; and  
 halogen is fluoro, chloro, bromo, or iodo;
- or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
49. The compound according to claim 1 selected from the group consisting of:
- N-(2,4-dimethoxyphenyl)-N'-(cis-4-([4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino)cyclohexyl)thiourea;
- N-(cis-4-([4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino)-cyclohexyl)-N'-(3,4,5-trimethoxyphenyl)thiourea;



- N-(3,4-dimethoxyphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiourea;
- N-[4-(dimethylamino)-1-naphthyl]-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiourea;
- N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(2-methoxy-5-methylphenyl)thiourea;
- N-(4-bromo-2-chlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiourea;
- N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(4-iodophenyl)thiourea;
- N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(2,4,6-tribromophenyl)thiourea;
- N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(2,4,6-trichlorophenyl)thiourea;
- N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-mesitylthiourea;
- N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(2,4-dimethylphenyl)thiourea;
- N-(2,6-diethylphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiourea;
- N-(4-bromo-2,6-dimethylphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiourea;
- N-(4-bromo-2-methylphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiourea;
- N-[4-bromo-2-(trifluoromethyl)phenyl]-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiourea;
- N-(4-chloro-2-methylphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiourea;

N-[4-chloro-2-(trifluoromethyl)phenyl]-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino} cyclohexyl)thiourea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(4-fluoro-2-methylphenyl)thiourea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(4-methoxy-2-methylphenyl)thiourea;

N-(5-chloro-2,4-dimethoxyphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino} cyclohexyl)thiourea;

N-(2,4-dibromo-6-fluorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino} cyclohexyl)thiourea;

N-(2,4-dichloro-6-methylphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino} cyclohexyl)thiourea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(2-ethoxyphenyl)thiourea;

N-[4-bromo-2-(trifluoromethoxy)phenyl]-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino} cyclohexyl)thiourea;

N-(4-chloro-2,5-dimethoxyphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino} cyclohexyl)thiourea; and

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(2,2-diphenylethyl)thiourea;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

50. The compound according to claim 29 wherein R<sub>1</sub> is selected from the group consisting of:

- (i) C<sub>1-3</sub> alkyl, and
- C<sub>1-3</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - C<sub>1-5</sub> alkoxy,

•C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,  
 °carbocyclyl,  
 °carbocyclic aryl,  
 °carbocyclic aryl substituted by substituent(s) independently selected from  
 the group consisting of:

°halogen,  
 °nitro, and  
 °C<sub>1-5</sub> alkoxy,

- (ii) C<sub>2-5</sub> alkenyl,
- (iii) carbocyclyl,
- (iv) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from  
 the group consisting of:

•halogen,  
 •C<sub>1-5</sub> alkyl,  
 •C<sub>1-5</sub> alkyl substituted by halogen, and  
 •C<sub>1-5</sub> alkoxy;

L is Formula (VII);

Y is -C(O)O-;

wherein carbocyclic aryl is phenyl or naphthyl;

carbocyclyl is 9H-fluorenyl or menthyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

51. The compound according to claim 50 wherein R<sub>2</sub> is methylamino or dimethylamino; p is 0;  
 R<sub>3</sub> and R<sub>4</sub> are hydrogen; A is a single bond; B is a single bond or -CH<sub>2</sub>-;  
 or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

52. The compound according to claim 2 wherein Q is Formula (IV); p is 0;

R<sub>1</sub> is selected from the group consisting of:

- (i) C<sub>1-8</sub> alkyl, and

C<sub>1-8</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•oxo,

•C<sub>1-5</sub> alkoxy,

•C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,

•C<sub>1-5</sub> alkylcarbonyloxy,

•carbocyclic aryloxy,

•carbocyclic aryloxy substituted by halogen,

•carbocyclic aryloxy substituted by nitro,

•carbocyclic aryloxy substituted by C<sub>1-5</sub> alkoxy,

•heterocyclyloxy,

•heterocyclyloxy substituted by C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkoxycarbonyl,

•mono-C<sub>1-5</sub> alkylaminocarbonyl,

•di-C<sub>1-5</sub> alkylaminocarbonyl,

•mono-C<sub>1-5</sub> alkylamino,

•mono-C<sub>1-5</sub> alkylamino substituted by cyano,

•mono-C<sub>1-5</sub> alkylamino substituted by carbocyclic aryl,

•di-C<sub>1-5</sub> alkylamino,

•di-C<sub>1-5</sub> alkylamino substituted by cyano,

•di-C<sub>1-5</sub> alkylamino substituted by carbocyclic aryl,

•mono-carbocyclic arylamino,

•mono-carbocyclic arylamino substituted by C<sub>1-5</sub> alkyl,

•di-carbocyclic arylamino,

- di-carbocyclic arylamino substituted by C<sub>1-3</sub> alkyl,
- C<sub>1-3</sub> alkoxy-carbonylamino,
- carbocyclic aryl-carbonylamino,
- C<sub>1-5</sub> alkylthio,
- C<sub>1-5</sub> alkylthio substituted by substituent(s) independently selected from the group consisting of:
  - carbocyclic aryl,
  - carbocyclic aryl substituted by halogen, and
  - carbocyclic aryl substituted by C<sub>1-3</sub> alkoxy,
- carbocyclic arylthio,
- heterocyclylthio,
- heterocyclylthio substituted by nitro,
- heterocyclylthio substituted by C<sub>1-3</sub> alkyl,
- C<sub>3-6</sub> cycloalkyl,
- C<sub>3-6</sub> cycloalkenyl,
- carbocyclyl,
- carbocyclyl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - C<sub>1-3</sub> alkyl,
  - C<sub>1-5</sub> alkoxy,
  - C<sub>2-5</sub> alkenyl, and
  - C<sub>2-5</sub> alkenyl substituted by substituent(s) independently selected from the group consisting of:
    - carbocyclic aryl, and
    - carbocyclic aryl substituted by C<sub>1-3</sub> alkylsulfanyl,
- carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••hydroxy,

••nitro,

••C<sub>1-5</sub> alkyl,

••C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•••oxo,

•••carbocyclic aryl, and

•••heterocyclyl,

••C<sub>2-5</sub> alkenyl,

••C<sub>1-5</sub> alkoxy,

••C<sub>1-5</sub> alkoxy substituted by halogen,

••C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,

••carbocyclic aryloxy,

••carbocyclic aryl, and

••heterocyclyl,

•heterocyclyl, and

•heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

••C<sub>1-5</sub> alkyl,

••C<sub>1-5</sub> alkyl substituted by carbocyclic aryl,

••C<sub>1-5</sub> alkoxy,

••C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,

••carbocyclic aryl, and

••carbocyclic aryl substituted by halogen,

(ii) C<sub>2-7</sub> alkenyl, and

C<sub>2-7</sub> alkenyl substituted by substituent(s) independently selected from the group consisting of:

•carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•nitro, and

•C<sub>1-5</sub> alkoxy,

(iii) C<sub>2-5</sub> alkynyl, and

C<sub>2-5</sub> alkynyl substituted by carbocyclic aryl,

(iv) C<sub>3-6</sub> cycloalkyl, and

C<sub>3-6</sub> cycloalkyl substituted by substituent(s) independently selected from the group consisting of:

•C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkyl substituted by oxo,

•C<sub>1-5</sub> alkyl substituted by carbocyclic aryl, and

•carbocyclic aryl,

(v) carbocyclyl,

(vi) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•hydroxy,

•cyano,

•nitro,

•C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

- halogen,
- OXO,
- carbocyclic aryloxy,
- carbocyclic aryl, and
- carbocyclic aryl substituted by C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkoxy,
- C<sub>1-5</sub> alkoxy substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - carbocyclic aryl, and
  - halogenated carbocyclic aryl,
- C<sub>2-5</sub> alkenyloxy,
- C<sub>3-6</sub> cycloalkoxy,
- carbocyclic aryloxy,
- carbocyclic aryloxy substituted by C<sub>1-5</sub> alkoxy,
- C<sub>1-5</sub> alkoxycarbonyl,
- mono-C<sub>1-5</sub> alkylaminocarbonyl,
- di-C<sub>1-5</sub> alkylaminocarbonyl,
- mono-C<sub>1-5</sub> alkylaminocarbonyl substituted by carbocyclic aryl,
- di-C<sub>1-5</sub> alkylaminocarbonyl substituted by carbocyclic aryl,
- amino,
- mono-C<sub>1-5</sub> alkylamino,
- di-C<sub>1-5</sub> alkylamino,
- mono-C<sub>1-5</sub> alkylamino substituted by cyano,
- di-C<sub>1-5</sub> alkylamino substituted by cyano,
- C<sub>2-5</sub> alkynylcarbonylamino,
- C<sub>2-5</sub> alkynylcarbonylamino substituted by carbocyclic aryl,
- (carbocyclic aryl)NHC(O)NH,



- (carbocyclic aryl)NHC(O)NH substituted by C<sub>1-5</sub> alkoxy,
- (carbocyclic aryl)NHC(O)NH substituted by halogenated C<sub>1-5</sub> alkoxy,
- C<sub>1-5</sub> alkylthio,
- C<sub>1-5</sub> alkylthio substituted by halogen,
- carbocyclic arylthio,
- carbocyclic arylthio substituted by cyano,
- mono-C<sub>1-5</sub> alkylaminosulfonyl,
- di-C<sub>1-5</sub> alkylaminosulfonyl,
- carbocyclic aryl,
- heterocyclyl, and
- heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- C<sub>1-5</sub> alkyl,
- carbocyclic aryl, and
- halogenated carbocyclic aryl,

(vii) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- halogen,
- nitro,
- C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

- halogen,
- hydroxy,
- C<sub>1-5</sub> alkylthio,
- C<sub>1-5</sub> alkylthio substituted by carbocyclic aryl,
- C<sub>1-5</sub> alkylthio substituted by halogenated carbocyclic aryl,

- carbocyclic aryl,
- carbocyclic aryl substituted by halogen, and
- heterocyclyl,
- C<sub>1-5</sub> alkoxy,
- carbocyclic aryloxy,
- carbocyclic aryloxy substituted by C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkylthio,
- C<sub>2-5</sub> alkenylthio,
- carbocyclic arylthio,
- carbocyclic arylthio substituted by C<sub>1-5</sub> alkoxy carbonyl,
- C<sub>1-5</sub> alkylsulfonyl,
- carbocyclic arylsulfonyl,
- carbocyclic arylsulfonyl substituted by C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkoxy carbonyl,
- carbocyclic aryl,
- carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - nitro,
  - C<sub>1-5</sub> alkyl, and
  - C<sub>1-5</sub> alkyl substituted by halogen,
  - heterocyclyl;

wherein carbocyclic aryl is phenyl, naphthyl, or anthranyl;

carbocyclyl is 1,2,3,4-tetrahydronaphthyl, 1-oxo-indanyl, 9-fluorenyl, 9-oxo-9H-fluorenyl, bicyclo[2.2.1]heptyl, indenyl, or menthyl;

heterocyclyl is 1,2,3-triazolyl, 1H-indolyl, 1H-pyrrolyl, 2,3-dihydro-1-oxo-isoidolyl, 2,3-dihydro-benzo[1,4]dioxinyl, 2,3-dihydro-benzofuryl, 2,4-dihydro-3-oxo-pyrazolyl, 2H-benzopyranyl, 2-oxo-benzopyranyl, 3,4-dihydro-2H-

benzo[b][1,4]dioxepinyl, 4-oxo-1,5,6,7-tetrahydro-indolyl, 4-oxo-benzopyranyl, 9H-carbazolyl, 9H-xanthenyl, benzo[1,3]dioxolyl, benzo[2,1,3]oxadiazolyl, benzo[1,2,5]oxadiazolyl, benzo[b]thienyl, benzofuryl, benzothiazolyl, furyl, imidazo[2,1-b]thiazolyl, imidazolyl, isoxazolyl, morpholino, pyrazolyl, pyridyl, pyrimidyl, quinolyl, quinoxalyl, thiazolyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

53. The compound according to claim 52 wherein R<sub>1</sub> is selected from the group consisting of:

(i) C<sub>1-7</sub> alkyl, and

C<sub>1-7</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•C<sub>1-5</sub> alkoxy,

•C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,

•carbocyclic aryloxy,

•carbocyclic aryloxy substituted by halogen,

•mono-C<sub>1-5</sub> alkylamino,

•mono-C<sub>1-5</sub> alkylamino substituted by substituent(s) independently selected from the group consisting of:

••cyano, and

••carbocyclic aryl,

•di-C<sub>1-5</sub> alkylamino,

•di-C<sub>1-5</sub> alkylamino substituted by substituent(s) independently selected from the group consisting of:

••cyano, and

••carbocyclic aryl,

•mono-carbocyclic arylamino,

•di-carbocyclic arylamino,

- mono-carbocyclic arylamino substituted by C<sub>1-5</sub> alkyl,
- di-carbocyclic arylamino substituted by C<sub>1-5</sub> alkyl,
- carbocyclic aryl,
- carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- halogen,
- C<sub>1-5</sub> alkyl, and
- C<sub>1-5</sub> alkoxy,

(ii) C<sub>2-7</sub> alkenyl, and  
C<sub>2-7</sub> alkenyl substituted by substituent(s) independently selected from the group consisting of:

- carbocyclic aryl, and
- carbocyclic aryl substituted by C<sub>1-5</sub> alkoxy,

(iii) C<sub>2-5</sub> alkynyl, and  
C<sub>2-5</sub> alkynyl substituted by carbocyclic aryl,

(iv) carbocyclic aryl, and  
carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- halogen,
- hydroxy,
- cyano,
- C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkyl substituted by halogen,
- C<sub>1-5</sub> alkoxy,
- C<sub>1-5</sub> alkoxy substituted by substituent(s) independently selected from the group consisting of:

- halogen,
- carbocyclic aryl, and

••carbocyclic aryl substituted by halogen,

•C<sub>2-5</sub> alkenyloxy,

•mono-C<sub>1-5</sub> alkylamino,

•di-C<sub>1-5</sub> alkylamino,

•mono-C<sub>1-5</sub> alkylamino substituted by cyano,

•di-C<sub>1-5</sub> alkylamino substituted by cyano,

•C<sub>1-5</sub> alkylthio, and

•C<sub>1-5</sub> alkylthio substituted by halogen,

(v) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkyl substituted by hydroxy,

•C<sub>1-5</sub> alkoxy,

•carbocyclic arylthio,

•carbocyclic arylthio substituted by C<sub>1-5</sub> alkoxycarbonyl,

•C<sub>1-5</sub> alkoxycarbonyl,

•carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••C<sub>1-5</sub> alkyl, and

••C<sub>1-5</sub> alkyl substituted by halogen;

L is Formula (VII);

Y is a single bond or -CH<sub>2</sub>-;

wherein carbocyclic aryl is phenyl or naphthyl;

heterocyclyl is 1*H*-indolyl, 1*H*-pyrrolyl, 2,3-dihydro-benzo[1,4]dioxinyl, 4-oxo-benzopyranyl, 9*H*-carbazolyl, benzo[1,3]dioxolyl, benzo[*b*]thienyl, furyl, imidazo[2,1-*b*]thiazolyl, pyrazolyl, pyridyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

54. The compound according to claim 53 wherein R<sub>2</sub> is methylamino, or dimethylamino; p is 0; R<sub>3</sub> and R<sub>4</sub> are hydrogen; A is a single bond; B is a single bond or -CH<sub>2</sub>-; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

55. The compound according to claim 54 wherein R<sub>1</sub> is selected from the group consisting of:

- (i) C<sub>2-5</sub> alkenyl, and  
C<sub>2-5</sub> alkenyl substituted by carbocyclic aryl,
- (ii) carbocyclic aryl, and  
carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - hydroxy,
  - C<sub>1-5</sub> alkyl,
  - C<sub>1-5</sub> alkoxy,
  - C<sub>1-5</sub> alkoxy substituted by substituent(s) independently selected from the group consisting of:
    - halogen,
    - carbocyclic aryl, and
    - carbocyclic aryl substituted by halogen,
  - C<sub>2-5</sub> alkenyloxy,
  - mono-C<sub>1-5</sub> alkylamino,
  - di-C<sub>1-5</sub> alkylamino,

- mono- $C_{1-5}$  alkylamino substituted by cyano, and
  - di- $C_{1-5}$  alkylamino substituted by cyano,
- (iii) heterocyclyl, and
- heterocyclyl substituted by substituent(s) independently selected from the group consisting of:
- halogen,
  - $C_{1-5}$  alkyl,
  - $C_{1-5}$  alkoxy,
  - $C_{1-5}$  alkoxycarbonyl,
  - carbocyclic aryl,
  - carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
    - halogen,
    - $C_{1-5}$  alkyl, and
    - $C_{1-5}$  alkyl substituted by halogen;
- wherein carbocyclic aryl is phenyl or naphthyl;
- heterocyclyl is 1*H*-indolyl, 9*H*-carbazolyl, benzo[1,3]dioxolyl, pyrazolyl, or pyridyl; and
- halogen is fluoro, chloro, bromo, or iodo;
- or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

56. The compound according to claim 55 wherein  $R_1$  is selected from the group consisting of:

- (i)  $C_{2-5}$  alkenyl, and
- $C_{2-5}$  alkenyl substituted by carbocyclic aryl,
- (ii) carbocyclic aryl, and
- carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,

- hydroxy,

- C<sub>1-5</sub> alkyl,

- C<sub>1-5</sub> alkoxy,

- C<sub>1-5</sub> alkoxy substituted by halogen,

- C<sub>2-5</sub> alkenyloxy,

(iii) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- halogen,

- C<sub>1-5</sub> alkyl,

- C<sub>1-5</sub> alkoxy,

- C<sub>1-5</sub> alkoxy carbonyl,

- carbocyclic aryl,

- carbocyclic aryl substituted by C<sub>1-5</sub> alkyl, and

- carbocyclic aryl substituted by halogenated C<sub>1-5</sub> alkyl;

wherein carbocyclic aryl is phenyl or naphthyl;

heterocyclyl is 1*H*-indolyl, 9*H*-carbazolyl, benzo[1,3]dioxolyl, or pyrazolyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

57. The compound according to claim 1 selected from the group consisting of:

N<sup>2</sup>-(cis-4-{{[(5-bromo-1*H*-indol-3-yl)methyl]amino} cyclohexyl)-N<sup>4</sup>,N<sup>4</sup>-dimethylpyrimidine-2,4-diamine;

N<sup>2</sup>-(cis-4-{{[5-(4-fluorophenyl)pyridin-3-yl)methyl]amino} cyclohexyl)-N<sup>4</sup>,N<sup>4</sup>-dimethylpyrimidine-2,4-diamine;

ethyl 4,6-dichloro-3-{{[cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl]amino}methyl]-1*H*-indole-2-carboxylate};



- $N^2$ -(cis-4-{[(2,6-dimethoxybenzyl)amino]methyl}cyclohexyl)- $N^4,N^4$ -dimethylpyrimidine-2,4-diamine;
- $N^2$ -(cis-4-{[(2-ethoxybenzyl)amino]methyl}cyclohexyl)- $N^4,N^4$ -dimethylpyrimidine-2,4-diamine;
- $N^2$ -(cis-4-{[(4-methoxy-1-naphthyl)methyl]amino}methyl)cyclohexyl]- $N^4,N^4$ -dimethylpyrimidine-2,4-diamine;
- $N^2$ -(cis-4-{[(5-methoxy-1H-indol-3-yl)methyl]amino}methyl)cyclohexyl]- $N^4,N^4$ -dimethylpyrimidine-2,4-diamine;
- $N^2$ -(cis-4-{[(2-methoxy-1-naphthyl)methyl]amino}methyl)cyclohexyl]- $N^4,N^4$ -dimethylpyrimidine-2,4-diamine;
- 4-bromo-2-({[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)methyl]amino}methyl)-6-methoxyphenol;
- $N^2$ -(cis-4-{[(5-bromo-1H-indol-3-yl)methyl]amino}methyl)cyclohexyl]- $N^4,N^4$ -dimethylpyrimidine-2,4-diamine;
- $N^2$ -(cis-4-{[(2,4-dimethoxybenzyl)amino]methyl}cyclohexyl)- $N^4,N^4$ -dimethylpyrimidine-2,4-diamine;
- $N^4,N^4$ -dimethyl- $N^2$ -(cis-4-{[(2,3,4-trimethoxybenzyl)amino]methyl}-cyclohexyl)pyrimidine-2,4-diamine;
- $N^2$ -(cis-4-{[(3-ethoxy-4-methoxybenzyl)amino]methyl}cyclohexyl)- $N^4,N^4$ -dimethylpyrimidine-2,4-diamine;
- $N^4,N^4$ -dimethyl- $N^2$ -(cis-4-{[(3-[4-(trifluoromethyl)phenyl]-1H-pyrazol-4-yl)methyl]amino}methyl}cyclohexyl)pyrimidine-2,4-diamine;
- $N^4,N^4$ -dimethyl- $N^2$ -(cis-4-{[(3,4,5-trimethoxybenzyl)amino]methyl}-cyclohexyl)pyrimidine-2,4-diamine;
- 4-({[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]amino}methyl)-2-iodo-6-methoxyphenol;
- 4-({[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]amino}methyl)-2,6-dimethylphenol;

$N^2$ -(cis-4-{{(5-bromo-2,4-dimethoxybenzyl)amino}methyl}cyclohexyl)- $N^4$ , $N^4$ -dimethylpyrimidine-2,4-diamine;

$N^2$ -(cis-4-{{(5-bromo-2-methoxybenzyl)amino}methyl}cyclohexyl)- $N^4$ , $N^4$ -dimethylpyrimidine-2,4-diamine;

$N^2$ -(cis-4-{{(4-(diethylamino)benzyl)amino}methyl}cyclohexyl)- $N^4$ , $N^4$ -dimethylpyrimidine-2,4-diamine;

$N^2$ -(cis-4-{{(9-ethyl-9H-carbazol-3-yl)methyl}amino}methyl}cyclohexyl)- $N^4$ , $N^4$ -dimethylpyrimidine-2,4-diamine;

$N^2$ -(cis-4-{{(4-isopropoxybenzyl)amino}methyl}cyclohexyl)- $N^4$ , $N^4$ -dimethylpyrimidine-2,4-diamine;

$N^2$ -(cis-4-{{(3,3-diphenylprop-2-en-1-yl)amino}methyl}cyclohexyl)- $N^4$ , $N^4$ -dimethylpyrimidine-2,4-diamine;

4-{{(cis-4-{{(4-(dimethylamino)pyrimidin-2-yl)amino}cyclohexyl)methyl}amino}methyl}-2-ethoxyphenol;

$N^2$ -(cis-4-{{(4-(dimethylamino)-1-naphthyl)methyl}amino}methyl}cyclohexyl)- $N^4$ , $N^4$ -dimethylpyrimidine-2,4-diamine;

$N^4$ , $N^4$ -dimethyl- $N^2$ -(cis-4-{{(2,4,6-trimethoxybenzyl)amino}methyl}cyclohexyl)pyrimidine-2,4-diamine;

$N^2$ -(cis-4-{{(5-bromo-2-ethoxybenzyl)amino}methyl}cyclohexyl)- $N^4$ , $N^4$ -dimethylpyrimidine-2,4-diamine;

$N^2$ -(cis-4-{{(2,4-dimethoxy-3-methylbenzyl)amino}methyl}cyclohexyl)- $N^4$ , $N^4$ -dimethylpyrimidine-2,4-diamine;

$N^2$ -(cis-4-{{(2,5-diethoxybenzyl)amino}methyl}cyclohexyl)- $N^4$ , $N^4$ -dimethylpyrimidine-2,4-diamine;

$N^2$ -(cis-4-{{(2,4-diethoxybenzyl)amino}methyl}cyclohexyl)- $N^4$ , $N^4$ -dimethylpyrimidine-2,4-diamine;

$N^2$ -(cis-4-{{(3,5-dibromo-2-methoxybenzyl)amino}methyl}cyclohexyl)- $N^4$ , $N^4$ -dimethylpyrimidine-2,4-diamine;

$N^4, N^4$ -dimethyl- $N^2$ -(cis-4-{{(2,4,5-triethoxybenzyl)amino}methyl}-cyclohexyl)pyrimidine-2,4-diamine;

$N^4, N^4$ -dimethyl- $N^2$ -(cis-4-{{(2,4,5-trimethoxybenzyl)amino}methyl}-cyclohexyl)pyrimidine-2,4-diamine;

$N^2$ -(cis-4-({[2-(allyloxy)benzyl]amino}methyl)cyclohexyl)- $N^4, N^4$ -dimethylpyrimidine-2,4-diamine;

$N^4, N^4$ -dimethyl- $N^2$ -(cis-4-({[(1-methyl-1H-indol-3-yl)methyl]amino}methyl)cyclohexyl)pyrimidine-2,4-diamine;

$N^2$ -(cis-4-({[(7-methoxy-1,3-benzodioxol-5-yl)methyl]amino}methyl)-cyclohexyl)- $N^4, N^4$ -dimethylpyrimidine-2,4-diamine;

$N^2$ -(cis-4-({[(3-bromo-4,5-dimethoxybenzyl)amino]methyl}cyclohexyl)- $N^4, N^4$ -dimethylpyrimidine-2,4-diamine;

$N^2$ -(cis-4-({[(4-methoxy-3-methylbenzyl)amino]methyl}cyclohexyl)- $N^4, N^4$ -dimethylpyrimidine-2,4-diamine;

$N^2$ -(cis-4-({[(2-bromo-4,5-dimethoxybenzyl)amino]methyl}cyclohexyl)- $N^4, N^4$ -dimethylpyrimidine-2,4-diamine;

$N^2$ -(cis-4-({[(3,4-dimethoxybenzyl)amino]methyl}cyclohexyl)- $N^4, N^4$ -dimethylpyrimidine-2,4-diamine;

$N^2$ -(cis-4-({[(4-methoxy-2,5-dimethylbenzyl)amino]methyl}cyclohexyl)- $N^4, N^4$ -dimethylpyrimidine-2,4-diamine;

3-[[4-({[(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-methyl]amino}methyl)phenyl](methyl)amino]propanenitrile;

$N^2$ -(cis-4-({[4-({[4-bromobenzyl]oxy]benzyl)amino}methyl}cyclohexyl)- $N^4, N^4$ -dimethylpyrimidine-2,4-diamine;

$N^2$ -(cis-4-({[(3,5-dibromo-2-ethoxybenzyl)amino]methyl}cyclohexyl)- $N^4, N^4$ -dimethylpyrimidine-2,4-diamine;

$N^2$ -(4-(4-bromo-2-trifluoromethoxy-benzyl)amino-cyclohexyl)- $N^4, N^4$ -dimethylpyrimidine-2,4-diamine;

$N^2$ -{cis-4-[2-(4-bromo-2-trifluoromethoxy-phenyl)-ethylamino]-cyclohexyl}-  
 $N^4, N^4$ -dimethyl-pyrimidine-2,4-diamine; and  
 $N^2$ -{cis-4-[(4-bromo-2-trifluoromethoxy-benzyl)amino-methyl]-cyclohexyl}-  
 $N^4, N^4$ -dimethyl-pyrimidine-2,4-diamine;  
 or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

58. The compound according to claim 57 selected from the group consisting of:

ethyl 4,6-dichloro-3-{{{cis-4-[[4-(dimethylamino)pyrimidin-2-yl]amino]-  
 cyclohexyl]amino)methyl}}-1H-indole-2-carboxylate;

$N^2$ -[cis-4-{{{(4-methoxy-1-naphthyl)methyl}amino)methyl}cyclohexyl]- $N^4, N^4$ -  
 dimethylpyrimidine-2,4-diamine;

$N^2$ -[cis-4-{{{(2-methoxy-1-naphthyl)methyl}amino)methyl}cyclohexyl]- $N^4, N^4$ -  
 dimethylpyrimidine-2,4-diamine;

4-bromo-2-{{{cis-4-[[4-(dimethylamino)pyrimidin-2-yl]amino]-  
 cyclohexyl)methyl]amino)methyl}-6-methoxyphenol;

$N^2$ -[cis-4-{{{(5-bromo-1H-indol-3-yl)methyl}amino)methyl}cyclohexyl]- $N^4, N^4$ -  
 dimethylpyrimidine-2,4-diamine;

$N^4, N^4$ -dimethyl- $N^2$ -(cis-4-{{{(2,3,4-trimethoxybenzyl)amino)methyl}-  
 cyclohexyl}pyrimidine-2,4-diamine;

$N^2$ -(cis-4-{{{(3-ethoxy-4-methoxybenzyl)amino)methyl}cyclohexyl})- $N^4, N^4$ -  
 dimethylpyrimidine-2,4-diamine;

$N^4, N^4$ -dimethyl- $N^2$ -(cis-4-{{{[3-[4-(trifluoromethyl)phenyl]-1H-pyrazol-4-  
 yl)methyl]amino)methyl}cyclohexyl}pyrimidine-2,4-diamine;

4-{{{[cis-4-[[4-(dimethylamino)pyrimidin-2-yl]amino]cyclohexyl)methyl]-  
 amino)methyl}-2-iodo-6-methoxyphenol;

4-{{{[cis-4-[[4-(dimethylamino)pyrimidin-2-yl]amino]cyclohexyl)methyl]-  
 amino)methyl}-2,6-dimethylphenol;

$N^2$ -(cis-4-(((5-bromo-2,4-dimethoxybenzyl)amino)methyl)cyclohexyl)- $N^4$ , $N^4$ -dimethylpyrimidine-2,4-diamine;

$N^2$ -(cis-4-(((5-bromo-2-methoxybenzyl)amino)methyl)cyclohexyl)- $N^4$ , $N^4$ -dimethylpyrimidine-2,4-diamine;

$N^2$ -(cis-4-(((9-ethyl-9H-carbazol-3-yl)methyl)amino)methyl)cyclohexyl)- $N^4$ , $N^4$ -dimethylpyrimidine-2,4-diamine;

$N^2$ -(cis-4-(((3,3-diphenylprop-2-en-1-yl)amino)methyl)cyclohexyl)- $N^4$ , $N^4$ -dimethylpyrimidine-2,4-diamine;

$N^4$ , $N^4$ -dimethyl- $N^2$ -(cis-4-(((2,4,6-trimethoxybenzyl)amino)methyl)-cyclohexyl)pyrimidine-2,4-diamine;

$N^2$ -(cis-4-(((5-bromo-2-ethoxybenzyl)amino)methyl)cyclohexyl)- $N^4$ , $N^4$ -dimethylpyrimidine-2,4-diamine;

$N^2$ -(cis-4-(((2,4-dimethoxy-3-methylbenzyl)amino)methyl)cyclohexyl)- $N^4$ , $N^4$ -dimethylpyrimidine-2,4-diamine;

$N^2$ -(cis-4-(((2,5-diethoxybenzyl)amino)methyl)cyclohexyl)- $N^4$ , $N^4$ -dimethylpyrimidine-2,4-diamine;

$N^2$ -(cis-4-(((3,5-dibromo-2-methoxybenzyl)amino)methyl)cyclohexyl)- $N^4$ , $N^4$ -dimethylpyrimidine-2,4-diamine;

$N^4$ , $N^4$ -dimethyl- $N^2$ -(cis-4-(((2,4,5-triethoxybenzyl)amino)methyl)-cyclohexyl)pyrimidine-2,4-diamine;

$N^2$ -(cis-4-(((2-(allyloxy)benzyl)amino)methyl)cyclohexyl)- $N^4$ , $N^4$ -dimethylpyrimidine-2,4-diamine;

$N^2$ -(cis-4-(((7-methoxy-1,3-benzodioxol-5-yl)methyl)amino)methyl)-cyclohexyl]- $N^4$ , $N^4$ -dimethylpyrimidine-2,4-diamine;

$N^2$ -(cis-4-(((3-bromo-4,5-dimethoxybenzyl)amino)methyl)cyclohexyl)- $N^4$ , $N^4$ -dimethylpyrimidine-2,4-diamine;

$N^2$ -(cis-4-[2-(4-bromo-2-trifluoromethoxy-phenyl)-ethylamino]-cyclohexyl)- $N^4$ , $N^4$ -dimethylpyrimidine-2,4-diamine; and

$N^2$ -(cis-4-[(4-bromo-2-trifluoromethoxy-benzyl)amino-methyl]-cyclohexyl)-  
 $N^4,N^4$ -dimethyl-pyrimidine-2,4-diamine;  
or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

59. The compound according to claim 52 wherein  $R_1$  is selected from the group consisting of:

- (i)  $C_{1-5}$  alkyl, and  
 $C_{1-5}$  alkyl substituted by substituent(s) independently selected from the group consisting of:
- oxo,
  - $C_{1-5}$  alkoxy,
  - $C_{1-5}$  alkoxy substituted by carbocyclic aryl,
  - $C_{1-5}$  alkylcarbonyloxy,
  - carbocyclic aryloxy,
  - carbocyclic aryloxy substituted by halogen,
  - carbocyclic aryloxy substituted by nitro,
  - carbocyclic aryloxy substituted by  $C_{1-5}$  alkoxy,
  - heterocyclyloxy,
  - heterocyclyloxy substituted by  $C_{1-5}$  alkyl,
  - mono- $C_{1-5}$  alkylaminocarbonyl,
  - di- $C_{1-5}$  alkylaminocarbonyl,
  - mono- $C_{1-5}$  alkylamino,
  - di- $C_{1-5}$  alkylamino,
  - mono-carbocyclic arylamino,
  - di-carbocyclic arylamino,
  - mono-carbocyclic arylamino substituted by halogen,
  - di-carbocyclic arylamino substituted by halogen,
  - carbocyclic arylcarbonylamino,
  - $C_{1-5}$  alkoxycarbonylamino,

•C<sub>1-5</sub> alkylthio,

•C<sub>1-5</sub> alkylthio substituted by substituent(s) independently selected from the group consisting of:

°°carbocyclic aryl, and

°°carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

°°°halogen, and

°°°C<sub>1-5</sub> alkoxy,

•carbocyclic arylthio,

•heterocyclylthio,

•heterocyclylthio substituted by C<sub>1-5</sub> alkyl,

•heterocyclylthio substituted by nitro,

•C<sub>3-6</sub> cycloalkyl,

•C<sub>3-6</sub> cycloalkenyl,

•carbocyclyl,

•carbocyclyl substituted by substituent(s) independently selected from the group consisting of:

°°halogen,

°°C<sub>1-5</sub> alkyl,

°°C<sub>1-5</sub> alkoxy,

°°C<sub>2-5</sub> alkenyl, and

°°C<sub>2-5</sub> alkenyl substituted by substituent(s) independently selected from the group consisting of:

°°°carbocyclic aryl, and

°°°carbocyclic aryl substituted by C<sub>1-5</sub> alkylsulfinyl,

•carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••hydroxy,

••nitro,

••C<sub>1-5</sub> alkyl,

••C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•••oxo,

•••carbocyclic aryl, and

•••heterocyclyl,

••C<sub>1-5</sub> alkoxy,

••C<sub>1-5</sub> alkoxy substituted by halogen,

••C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,

••carbocyclic aryloxy,

••carbocyclic aryl, and

••heterocyclyl,

•heterocyclyl, and

•heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

••C<sub>1-5</sub> alkyl,

••C<sub>1-5</sub> alkyl substituted by carbocyclic aryl,

••C<sub>1-5</sub> alkoxy,

••C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,

••carbocyclic aryl, and

••carbocyclic aryl substituted by halogen,

(ii) C<sub>2-5</sub> alkenyl, and

C<sub>2-5</sub> alkenyl substituted by substituent(s) independently selected from the group consisting of:

•carbocyclic aryl,



•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

°°halogen, and

°°nitro,

(iii) C<sub>3-6</sub> cycloalkyl, and

C<sub>3-6</sub> cycloalkyl substituted by substituent(s) independently selected from the group consisting of:

•C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

••oxo, and

••carbocyclic aryl, and

•carbocyclic aryl,

(iv) carbocyclyl,

(v) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•hydroxy,

•cyano,

•nitro,

•C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

°°halogen,

°°oxo,

••carbocyclic aryloxy,

••carbocyclic aryl, and

••carbocyclic aryl substituted by C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkoxy,

•C<sub>1-5</sub> alkoxy substituted by substituent(s) independently selected from the group consisting of:

••halogen, and

••carbocyclic aryl,

•carbocyclic aryloxy,

•carbocyclic aryloxy substituted by C<sub>1-5</sub> alkoxy,

•mono-C<sub>1-5</sub> alkylaminocarbonyl,

•di-C<sub>1-5</sub> alkylaminocarbonyl,

•mono-C<sub>1-5</sub> alkylaminocarbonyl substituted by carbocyclic aryl,

•di-C<sub>1-5</sub> alkylaminocarbonyl substituted by carbocyclic aryl,

•amino,

•mono-C<sub>1-5</sub> alkylamino,

•di-C<sub>1-5</sub> alkylamino,

•C<sub>2-5</sub> alkynylcarbonylamino,

•C<sub>2-5</sub> alkynylcarbonylamino substituted by carbocyclic aryl,

•(carbocyclic aryl)NHC(O)NH,

•(carbocyclic aryl)NHC(O)NH substituted by C<sub>1-5</sub> alkoxy,

•(carbocyclic aryl)NHC(O)NH substituted by halogenated C<sub>1-5</sub> alkoxy,

•C<sub>1-5</sub> alkylthio,

•C<sub>1-5</sub> alkylthio substituted by halogen,

•carbocyclic arylthio,

•carbocyclic arylthio substituted by cyano,

•mono-C<sub>1-5</sub> alkylaminosulfonyl,

•di-C<sub>1-5</sub> alkylaminosulfonyl, and

•carbocyclic aryl,

•carbocyclic aryl substituted by halogen,

- heterocyclyl, and

- heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- C<sub>1-5</sub> alkyl,

- carbocyclic aryl, and

- halogenated carbocyclic aryl,

(vi) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- halogen,

- nitro,

- C<sub>1-5</sub> alkyl,

- C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

- halogen,

- C<sub>1-5</sub> alkylthio,

- C<sub>1-5</sub> alkylthio substituted by carbocyclic aryl,

- C<sub>1-5</sub> alkylthio substituted by halogenated carbocyclic aryl,

- carbocyclic aryl,

- carbocyclic aryl substituted by halogen, and

- heterocyclyl,

- C<sub>1-5</sub> alkoxy,

- carbocyclic aryloxy,

- carbocyclic aryloxy substituted by halogen,

- carbocyclic aryloxy substituted by C<sub>1-5</sub> alkyl,

- C<sub>1-5</sub> alkylthio,

- C<sub>2-5</sub> alkenylthio,

- carbocyclic arylthio,

- C<sub>1-5</sub> alkylsulfonyl,
- carbocyclic arylsulfonyl,
- carbocyclic arylsulfonyl substituted by C<sub>1-5</sub> alkyl,
- carbocyclic aryl,
- carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- halogen,

- nitro, and

- C<sub>1-5</sub> alkyl,

- heterocyclyl;

L is Formula (VII);

Y is -C(O)-;

wherein carbocyclic aryl is phenyl, naphthyl, or anthranyl;

carbocyclyl is 1,2,3,4-tetrahydronaphthyl, 1-oxo-indanyl, 9-oxo-9H-fluorenyl, or indenyl;

heterocyclyl is 1,2,3-triazolyl, 1H-indolyl, 1H-pyrrolyl, 2,3-dihydro-1-oxo-isindolyl, 2,3-dihydro-benzofuryl, 2,4-dihydro-3-oxo-pyrazolyl, 2H-benzopyranyl, 2-oxo-benzopyranyl, 4-oxo-1,5,6,7-tetrahydro-indolyl, 9H-xanthenyl, benzo[1,3]dioxolyl, benzo[2,1,3]oxadiazolyl, benzo[1,2,5]oxadiazolyl, benzo[b]thienyl, benzofuryl, benzothiazolyl, furyl, imidazolyl, isoxazolyl, morpholino, pyrazolyl, pyridyl, pyrimidyl, quinolyl, quinoxalyl, thiazolyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

60. The compound according to claim 59 wherein R<sub>2</sub> is hydrogen, trifluoromethyl, methoxy, methylamino, dimethylamino, ethylamino, ethylmethylamino, or

hydroxylethylmethylamino; p is 0; R<sub>3</sub> and R<sub>4</sub> are hydrogen; A is a single bond; B is a single bond or -CH<sub>2</sub>-;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

61. The compound according to claim 60 wherein R<sub>1</sub> is selected from the group consisting of:

(i) C<sub>1-5</sub> alkyl, and

C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•oxo,

•carbocyclic aryloxy,

•carbocyclic aryloxy substituted by halogen,

•carbocyclic aryloxy substituted by C<sub>1-5</sub> alkoxy,

•mono-C<sub>1-5</sub> alkylaminocarbonyl,

•di-C<sub>1-5</sub> alkylaminocarbonyl,

•mono-C<sub>1-5</sub> alkylamino,

•di-C<sub>1-5</sub> alkylamino,

•mono-carbocyclic arylamino,

•di-carbocyclic arylamino,

•mono-carbocyclic arylamino substituted by halogen,

•di-carbocyclic arylamino substituted by halogen,

•carbocyclic arylcarbonylamino,

•C<sub>1-5</sub> alkylthio,

•C<sub>3-6</sub> cycloalkyl,

•carbocyclyl,

•carbocyclyl substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••C<sub>1-5</sub> alkyl,

••C<sub>2-5</sub> alkenyl, and

••C<sub>2-5</sub> alkenyl substituted by substituent(s) independently selected from the group consisting of:

•••carbocyclic aryl, and

•••carbocyclic aryl substituted by C<sub>1-5</sub> alkylsulfanyl,

•carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••hydroxy,

••nitro,

••C<sub>1-5</sub> alkyl,

••C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•••oxo,

•••carbocyclic aryl, and

•••heterocyclyl,

••C<sub>1-5</sub> alkoxy,

••C<sub>1-5</sub> alkoxy substituted by halogen,

•heterocyclyl, and

•heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

••C<sub>1-5</sub> alkyl,

••carbocyclic aryl, and

••carbocyclic aryl substituted by halogen,

(ii) C<sub>2-5</sub> alkenyl, and

C<sub>2-5</sub> alkenyl substituted by substituent(s) independently selected from the group consisting of:

•carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

•halogen, and

•nitro,

(iii) carbocyclyl,

(iv) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•hydroxy,

•nitro,

•C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••oxo, and

••carbocyclic aryl,

•C<sub>1-5</sub> alkoxy,

•C<sub>1-5</sub> alkoxy substituted by substituent(s) independently selected from the group consisting of:

••halogen, and

••carbocyclic aryl,

•carbocyclic aryloxy,

•carbocyclic aryloxy substituted by C<sub>1-5</sub> alkoxy,

•mono-C<sub>1-5</sub> alkylaminocarbonyl,

•di-C<sub>1-5</sub> alkylaminocarbonyl,

•mono-C<sub>1-5</sub> alkylaminocarbonyl substituted by carbocyclic aryl,

- di- $C_{1-5}$  alkylaminocarbonyl substituted by carbocyclic aryl,
- mono- $C_{1-5}$  alkylamino,
- di- $C_{1-5}$  alkylamino,
- $C_{2-5}$  alkynylcarbonylamino,
- $C_{2-5}$  alkynylcarbonylamino substituted by carbocyclic aryl,
- mono- $C_{1-5}$  alkylaminosulfonyl, and
- di- $C_{1-5}$  alkylaminosulfonyl,

(v) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- halogen,

- nitro,

- $C_{1-5}$  alkyl,

- $C_{1-5}$  alkyl substituted by substituent(s) independently selected from the group consisting of:

- $C_{1-5}$  alkylthio,

- $C_{1-5}$  alkylthio substituted by carbocyclic aryl,

- $C_{1-5}$  alkylthio substituted by halogenated carbocyclic aryl,

- carbocyclic aryl,

- carbocyclic aryl substituted by halogen, and

- heterocyclyl,

- carbocyclic aryloxy,

- carbocyclic aryloxy substituted by halogen,

- carbocyclic aryloxy substituted by  $C_{1-5}$  alkyl,

- $C_{1-5}$  alkylthio,

- $C_{1-5}$  alkylsulfonyl,

- carbocyclic arylsulfonyl,

- carbocyclic arylsulfonyl substituted by  $C_{1-5}$  alkyl,



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•carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•nitro, and

•C<sub>1-5</sub> alkyl,

•heterocyclyl;

wherein carbocyclic aryl is phenyl or naphthyl;

carbocyclyl is 1-oxo-indanyl, 9-oxo-9H-fluorenyl, or indenyl;

heterocyclyl is 1,2,3-triazolyl, 1H-indolyl, 1H-pyrrolyl, 2,3-dihydro-benzofuryl, 2H-benzopyranyl, 9H-xanthenyl, benzo[2,1,3]oxadiazolyl, benzo[1,2,5]oxadiazolyl, benzo[b]thienyl, furyl, isoxazolyl, morpholino, pyrazolyl, pyridyl, quinolyl, quinoxalyl, thiazolyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

62. The compound according to claim 61 wherein R<sub>1</sub> is selected from the group consisting of:

(i) C<sub>1-5</sub> alkyl, and

C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•oxo,

•carbocyclic aryloxy,

•carbocyclic aryloxy substituted by halogen,

•carbocyclic aryloxy substituted by C<sub>1-5</sub> alkoxy,

•mono-C<sub>1-5</sub> alkylamino,

•di-C<sub>1-5</sub> alkylamino,

•mono-carbocyclic arylamino,

•di-carbocyclic arylamino,

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- mono-carbocyclic arylamino substituted by halogen,
- di-carbocyclic arylamino substituted by halogen,
- C<sub>1-3</sub> alkylthio,
- carbocyclic aryl,
- carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- halogen,
- hydroxy,
- C<sub>1-3</sub> alkyl,
- C<sub>1-3</sub> alkoxy, and
- C<sub>1-3</sub> alkoxy substituted by halogen,

- heterocyclyl, and
- heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- C<sub>1-3</sub> alkyl,
- carbocyclic aryl, and
- carbocyclic aryl substituted by halogen,

(ii) C<sub>2-3</sub> alkenyl, and  
C<sub>2-3</sub> alkenyl substituted by substituent(s) independently selected from the group consisting of:

- carbocyclic aryl,
- carbocyclic aryl substituted by nitro,

(iii) carbocyclyl,

(iv) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- halogen,
- hydroxy,

- nitro,
- C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkyl substituted by halogen,
- C<sub>1-5</sub> alkoxy,
- C<sub>1-5</sub> alkoxy substituted by halogen,
- C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,
- carbocyclic aryloxy,
- carbocyclic aryloxy substituted by C<sub>1-5</sub> alkoxy,
- mono-C<sub>1-5</sub> alkylaminocarbonyl,
- di-C<sub>1-5</sub> alkylaminocarbonyl,
- mono-C<sub>1-5</sub> alkylaminocarbonyl substituted by carbocyclic aryl,
- di-C<sub>1-5</sub> alkylaminocarbonyl substituted by carbocyclic aryl,
- mono-C<sub>1-5</sub> alkylaminosulfonyl, and
- di-C<sub>1-5</sub> alkylaminosulfonyl,

(v) heterocyclyl, and  
 heterocyclyl substituted by substituent(s) independently selected from the  
 group consisting of:

- halogen,
- nitro,
- C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the  
 group consisting of:
  - C<sub>1-5</sub> alkylthio,
  - C<sub>1-5</sub> alkylthio substituted by carbocyclic aryl, and
  - C<sub>1-5</sub> alkylthio substituted by halogenated carbocyclic aryl,
- carbocyclic aryloxy,
- carbocyclic aryloxy substituted by halogen,
- carbocyclic aryloxy substituted by C<sub>1-5</sub> alkyl,

•carbocyclic aryl,

•carbocyclic aryl substituted by halogen,

•carbocyclic aryl substituted by nitro, and

•heterocyclyl;

wherein carbocyclic aryl is phenyl or naphthyl;

carbocyclyl is 1-oxo-indanyl;

heterocyclyl is 1,2,3-triazolyl, 1*H*-indolyl, 1*H*-pyrrolyl, 2,3-dihydro-

benzofuryl, 9*H*-xanthenyl, benzo[2,1,3]oxadiazolyl, benzo[1,2,5]oxadiazolyl,

benzo[b]thienyl, furyl, isoxazolyl, pyridyl, quinoxalyl, thiazolyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

63. The compound according to claim 1 selected from the group consisting of:

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-3-

methoxybenzamide;

3-bromo-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-

benzamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-2,1,3-

benzoxadiazole-5-carboxamide;

3-chloro-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-

benzamide;

4-chloro-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-

benzamide;

4-chloro-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-3-

nitrobenzamide;

3,5-dichloro-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}-

cyclohexyl)benzamide;

3,4-dichloro-N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl})benzamide;

N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-2,2-diphenylacetamide;

N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-3,4-difluorobenzamide;

N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-3,5-difluorobenzamide;

N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-3-fluoro-5-(trifluoromethyl)benzamide;

N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-4-methyl-3-nitrobenzamide;

N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-3-nitrobenzamide;

N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-2-phenoxybutanamide;

N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-3-methylbenzamide;

N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-3-(trifluoromethoxy)benzamide;

4-bromo-N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-3-methylbenzamide;

N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-3-iodobenzamide;

N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-2,5-dimethyl-3-furamide;

3-chloro-N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-4-fluorobenzamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-3,5-dimethoxybenzamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-3,5-bis(trifluoromethyl)benzamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-4-fluoro-3-methylbenzamide;

2,5-dichloro-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}-cyclohexyl)thiophene-3-carboxamide;

1-benzyl-3-tert-butyl-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}-cyclohexyl)-1H-pyrazole-5-carboxamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-2-(1-naphthyl)acetamide;

2-(4-chlorophenoxy)-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}-cyclohexyl)acetamide;

1-(4-chlorophenyl)-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}-cyclohexyl)cyclopentanecarboxamide;

3-(2-chloro-6-fluorophenyl)-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-5-methylisoxazole-4-carboxamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-4-fluoro-3-(trifluoromethyl)benzamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-5-methyl-2-phenyl-2H-1,2,3-triazole-4-carboxamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-2-(4-methoxyphenoxy)-5-nitrobenzamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-2-phenoxyacetamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-quinoxaline-2-carboxamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-3-(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-(pentafluorophenoxy)acetamide;

2-(3-chlorophenoxy)-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)acetamide;

3-(2,6-dichlorophenyl)-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-5-methylisoxazole-4-carboxamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-phenoxynicotinamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-(4-methylphenoxy)nicotinamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-4-[[dipropylamino)sulfonyl]benzamide;

2-(4-chlorophenoxy)-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-methylpropanamide;

2-(2,3-dihydro-1-benzofuran-5-yl)-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-1,3-thiazole-4-carboxamide;

3-tert-butyl-1-(2,4-dichlorobenzyl)-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-1H-pyrazole-5-carboxamide;

6-chloro-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2H-chromene-3-carboxamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-(2-thienyl)-1,3-thiazole-4-carboxamide;

5-(4-chloro-2-nitrophenyl)-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-furamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-5-iodo-2-furamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)-5-(4-methyl-2-nitrophenyl)-2-furamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)-5-nitrothiophene-2-carboxamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)-3-methyl-4-nitrobenzamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)-3-methoxy-4-nitrobenzamide;

1-benzyl-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)-1H-indole-3-carboxamide;

3-acetyl-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)-benzamide;

5-bromo-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)-2-furamide;

5-(4-chlorophenyl)-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}-cyclohexyl)-2-furamide;

4,5-dibromo-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}-cyclohexyl)thiophene-2-carboxamide;

2-(3,5-di-tert-butyl-4-hydroxyphenyl)-N-(cis-4-{{4-(dimethylamino)-pyrimidin-2-yl}amino} cyclohexyl)acetamide;

N<sup>2</sup>,N<sup>6</sup>-dibenzoyl-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}-cyclohexyl)lysineamide;

3-(dimethylamino)-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}-cyclohexyl)benzamide;

4,5-dibromo-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}-cyclohexyl)-2-furamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)-2-(1H-indol-3-yl)acetamide;



N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)-2-(5-methyl-2-phenyl-1,3-thiazol-4-yl)acetamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)-2-(1H-indol-3-yl)-4-oxo-4-phenylbutanamide;

4-(4-bromophenyl)-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}-cyclohexyl)-2-(1H-indol-3-yl)-4-oxobutanamide;

3,5-dichloro-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}-cyclohexyl)-2-[(3-phenylprop-2-ynoyl)amino]benzamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)-2-(1-methyl-1H-indol-3-yl)-4-(4-methylphenyl)-4-oxobutanamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)-2-methyl-1-(3-morpholin-4-ylpropyl)-5-phenyl-1H-pyrrole-3-carboxamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)-4-(4-nitrophenyl)butanamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)-2-(2-phenyl-1H-indol-3-yl)acetamide;

N<sup>2</sup>-benzoyl-N<sup>5</sup>-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}-cyclohexyl)-N<sup>1</sup>,N<sup>1</sup>-dipropylglutamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)-3-phenoxybenzamide;

3-benzoyl-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}-cyclohexyl)benzamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)-2-(ethylthio)-2,2-diphenylacetamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)-N'-[(1R)-1-(1-naphthyl)ethyl]phthalamide;

(2S)-2-(3-benzoylphenyl)-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)propanamide;

N'-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-N,N-bis[(1S)-1-phenylethyl]phthalamide;

N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-2-{{(1E)-5-fluoro-2-methyl-1-[4-(methylsulfinyl)benzylidene]-1H-inden-3-yl}acetamide;

N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-2-[4-(2-thienylcarbonyl)phenyl]propanamide;

3-(benzyloxy)-N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-4-methoxybenzamide;

N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-2-methyl-1,5-diphenyl-1H-pyrrole-3-carboxamide;

1-{2-[(2-chloro-6-fluorobenzyl)thio]ethyl}-N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-2-methyl-5-phenyl-1H-pyrrole-3-carboxamide;

N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-2-phenoxybenzamide;

N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-2-phenylquinoline-4-carboxamide;

2-[4-(4-chlorophenyl)-2-phenyl-1,3-thiazol-5-yl]-N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})acetamide;

N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-1-[(4-methylphenyl)sulfonyl]-1H-pyrrole-3-carboxamide;

N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-5-(3-nitrophenyl)-2-furamide;

3-chloro-N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-4-(isopropylsulfonyl)-5-(methylthio)thiophene-2-carboxamide;

N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-3-iodo-4-(isopropylsulfonyl)-5-(methylthio)thiophene-2-carboxamide;

N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-5-nitrothiophene-3-carboxamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-1-methyl-4-nitro-1H-pyrrole-2-carboxamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-4-nitrobenzamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-3,5-dimethyl-4-nitrobenzamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-2-mesityl-2-oxoacetamide;

3,5-di-tert-butyl-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}-cyclohexyl)-4-hydroxybenzamide;

4-chloro-N-[(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-methyl]benzamide;

(2E)-N-[(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-methyl]-3-phenylacrylamide;

4-chloro-N-[(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-methyl]-3-nitrobenzamide;

2-(4-chlorophenyl)-N-[(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}-cyclohexyl)methyl]acetamide;

3,5-dichloro-N-[(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}-cyclohexyl)methyl]benzamide;

3,4-dichloro-N-[(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}-cyclohexyl)methyl]benzamide;

N-[(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)methyl]-2,2-diphenylacetamide;

2,4-dichloro-N-[(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}-cyclohexyl)methyl]-5-fluorobenzamide;

N-[(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)methyl]-2-phenoxybutanamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-2-phenylbutanamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-2-(3-methoxyphenyl)acetamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-2-(4-methoxyphenyl)acetamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-3,5-bis(trifluoromethyl)benzamide;

(2E)-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-methyl]-3-(4-nitrophenyl)acrylamide;

2-(2-bromophenyl)-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)methyl]acetamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-2-(propylthio)nicotinamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-2-(1-naphthyl)acetamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-9-oxo-9H-fluorene-4-carboxamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-2,4,6-trimethylbenzamide;

2,4,6-trichloro-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)methyl]benzamide;

(2E)-3-(2-chlorophenyl)-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]acrylamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-2-(2,3,6-trichlorophenyl)acetamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-2,3-diphenylpropanamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-5-iodo-2-furamide;

(2E)-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-methyl]-3-(3-nitrophenyl)acrylamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-3-oxoindane-1-carboxamide;

2-benzyl-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-methyl]benzamide;

2,2-bis(4-chlorophenyl)-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]acetamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-3-methyl-4-nitrobenzamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-3-methoxy-4-nitrobenzamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-2-[2-(trifluoromethoxy)phenyl]acetamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-9H-xanthene-9-carboxamide;

2-(1-benzothien-3-yl)-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]acetamide;

N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-2-(4-fluorophenoxy)-nicotinamide;

N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-C-(ethyl-phenyl-amino)-acetamide;

C-[cis-(4-chloro-phenyl)-ethyl-amino]-N-[4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-acetamide;

2-(3,4-difluoro-phenyl)-N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-acetamide;

4-chloro-N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3-fluoro-benzamide;

5-bromo-N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-nicotinamide;

3-chloro-4-fluoro-N-[cis-4-(4-methylamino-pyrimidin-2-ylamino)-cyclohexyl]-benzamide;

N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-4-fluoro-benzamide;

3-chloro-N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-5-fluoro-benzamide;

N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3,4,5-trifluoro-benzamide;

N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexylmethyl]-3,4-difluoro-benzamide;

2-(3,4-dichloro-phenoxy)-N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-acetamide;

N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-2-(3-methoxy-phenoxy)-acetamide; and

N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-C-(ethyl-phenyl-amino)-acetamide;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

64. The compound according to claim 63 selected from the group consisting of:

3-bromo-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-benzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2,1,3-benzoxadiazole-5-carboxamide;

3-chloro-N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-benzamide;

4-chloro-N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-3-nitrobenzamide;

3,5-dichloro-N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})benzamide;

3,4-dichloro-N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})benzamide;

N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-3,4-difluorobenzamide;

N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-3-nitrobenzamide;

N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-3-(trifluoromethoxy)benzamide;

4-bromo-N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-3-methylbenzamide;

N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-3-iodobenzamide;

3-chloro-N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-4-fluorobenzamide;

N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-3,5-dimethoxybenzamide;

N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-3,5-bis(trifluoromethyl)benzamide;

N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})-4-fluoro-3-methylbenzamide;

2-(4-chlorophenoxy)-N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl})acetamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)-4-fluoro-3-(trifluoromethyl)benzamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)-5-methyl-2-phenyl-2H-1,2,3-triazole-4-carboxamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)-2-(4-methoxyphenoxy)-5-nitrobenzamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)-quinoxaline-2-carboxamide;

2-(3-chlorophenoxy)-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)acetamide;

3-(2,6-dichlorophenyl)-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)-5-methylisoxazole-4-carboxamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)-2-(4-methylphenoxy)nicotinamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)-4-[[dipropylamino)sulfonyl]benzamide;

2-(2,3-dihydro-1-benzofuran-5-yl)-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)-1,3-thiazole-4-carboxamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)-2-(2-thienyl)-1,3-thiazole-4-carboxamide;

5-(4-chloro-2-nitrophenyl)-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)-2-furamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)-3-methoxy-4-nitrobenzamide;

5-bromo-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)-2-furamide;

5-(4-chlorophenyl)-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino} cyclohexyl)-2-furamide;



2-(3,5-di-tert-butyl-4-hydroxyphenyl)-N-(cis-4-{{4-(dimethylamino)-pyrimidin-2-yl}amino}cyclohexyl)acetamide;

4,5-dibromo-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}-cyclohexyl)-2-furamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-2-(1H-indol-3-yl)-4-oxo-4-phenylbutanamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-2-(1-methyl-1H-indol-3-yl)-4-(4-methylphenyl)-4-oxobutanamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-2-(2-phenyl-1H-indol-3-yl)acetamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-2-(ethylthio)-2,2-diphenylacetamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-N,N-bis[(1S)-1-phenylethyl]phthalamide;

3-(benzyloxy)-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}-cyclohexyl)-4-methoxybenzamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-2-methyl-1,5-diphenyl-1H-pyrrole-3-carboxamide;

1-{2-[[2-chloro-6-fluorobenzyl]thio]ethyl}-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-2-methyl-5-phenyl-1H-pyrrole-3-carboxamide;

2-[4-(4-chlorophenyl)-2-phenyl-1,3-thiazol-5-yl]-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)acetamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-5-nitrothiophene-3-carboxamide;

N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)-1-methyl-4-nitro-1H-pyrrole-2-carboxamide;

3,5-di-tert-butyl-N-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}-cyclohexyl)-4-hydroxybenzamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-2,2-diphenylacetamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-2-phenylbutanamide;

(2E)-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-methyl]-3-(4-nitrophenyl)acrylamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-2-(1-naphthyl)acetamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-2-(2,3,6-trichlorophenyl)acetamide;

(2E)-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-methyl]-3-(3-nitrophenyl)acrylamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-3-oxoindane-1-carboxamide;

2,2-bis(4-chlorophenyl)-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]acetamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-3-methyl-4-nitrobenzamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-3-methoxy-4-nitrobenzamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-2-[2-(trifluoromethoxy)phenyl]acetamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-9H-xanthene-9-carboxamide;

2-(1-benzothien-3-yl)-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]acetamide;

N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-2-(4-fluorophenoxy)-nicotinamide;

N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-C-(ethyl-phenyl-amino)-acetamide;

C-[cis-(4-chloro-phenyl)-ethyl-amino]-N-[4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-acetamide;

4-chloro-N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3-fluorobenzamide;

N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3,4,5-trifluorobenzamide;

2-(3,4-dichloro-phenoxy)-N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-acetamide;

N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-2-(3-methoxyphenoxy)-acetamide; and

N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-C-(ethyl-phenyl-amino)-acetamide;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

65. The compound according to claim 52 wherein R<sub>1</sub> is selected from the group consisting of:

(i) C<sub>1-5</sub> alkyl, and

C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•C<sub>1-5</sub> alkoxy carbonyl,

•C<sub>1-5</sub> alkylthio,

•carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••C<sub>1-5</sub> alkyl, and

••C<sub>2-5</sub> alkenyl,

- (ii) C<sub>3-6</sub> cycloalkyl,  
C<sub>3-6</sub> cycloalkyl substituted by carbocyclic aryl,
  - (iii) carbocyclic aryl, and  
carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
    - halogen,
    - cyano,
    - nitro,
    - C<sub>1-5</sub> alkyl,
    - C<sub>1-5</sub> alkyl substituted by halogen,
    - C<sub>1-5</sub> alkoxy carbonyl,
    - C<sub>1-5</sub> alkoxy,
    - C<sub>3-6</sub> cycloalkoxy,
    - carbocyclic aryloxy,
    - C<sub>1-5</sub> alkylthio, and
    - carbocyclic aryl,
  - (iv) heterocyclyl, and  
heterocyclyl substituted by substituent(s) independently selected from the group consisting of:
    - C<sub>1-5</sub> alkyl,
    - C<sub>1-5</sub> alkyl substituted by halogen, and
    - carbocyclic aryl;
- L is Formula (VII);  
Y is -C(O)NR<sub>5</sub>;
- wherein carbocyclic aryl is phenyl or naphthyl;  
heterocyclyl is 2,3-dihydro-benzo[1,4]dioxinyl, 3,4-dihydro-2H-benzo[b][1,4]dioxepinyl, benzo[1,3]dioxolyl, furyl, or isoxazolyl; and  
halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

66. The compound according to claim 65 wherein R<sub>2</sub> is methylamino or dimethylamino; p is 0; R<sub>3</sub> and R<sub>4</sub> are hydrogen; A is a single bond; B is a single bond or -CH<sub>2</sub>-; R<sub>5</sub> is hydrogen; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
67. The compound according to claim 66 wherein R<sub>1</sub> is selected from the group consisting of:
- (i) C<sub>1-5</sub> alkyl, and  
C<sub>1-5</sub> alkyl substituted by carbocyclic aryl,
  - (ii) carbocyclic aryl, and  
carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
    - halogen,
    - nitro,
    - C<sub>1-5</sub> alkyl,
    - C<sub>1-5</sub> alkyl substituted by halogen,
    - C<sub>1-5</sub> alkoxy, and
    - C<sub>3-6</sub> cycloalkoxy,
  - (iii) heterocyclyl, and  
heterocyclyl substituted by C<sub>1-5</sub> alkyl, and  
heterocyclyl substituted by carbocyclic aryl;  
wherein carbocyclic aryl is phenyl or naphthyl;  
heterocyclyl is isoxazolyl; and  
halogen is fluoro, chloro, bromo, or iodo;
- or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
68. The compound according to claim 1 selected from the group consisting of:
- N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-N'-mesitylurea;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino} cyclohexyl)-N'-(2,4,6-trichlorophenyl)urea;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino} cyclohexyl)-N'-(2,4,6-tribromophenyl)urea;

N-(2,4-dibromo-6-fluorophenyl)-N'-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino} cyclohexyl)urea;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino} cyclohexyl)-N'-(diphenylmethyl)urea;

N-(4-bromo-2,6-dimethylphenyl)-N'-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino} cyclohexyl)urea;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino} cyclohexyl)-N'-[1-(1-naphthyl)ethyl]urea;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino} cyclohexyl)-N'-(3,4,5-trimethoxyphenyl)urea;

N-(4-chloro-2-methylphenyl)-N'-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino} cyclohexyl)urea;

N-(5-chloro-2,4-dimethoxyphenyl)-N'-(cis-4-{[4-(dimethylamino)-pyrimidin-2-yl]amino} cyclohexyl)urea;

N-(4-bromo-2-methylphenyl)-N'-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino} cyclohexyl)urea;

N-(2,6-dibromo-4-isopropylphenyl)-N'-(cis-4-{[4-(dimethylamino)-pyrimidin-2-yl]amino} cyclohexyl)urea;

N-[3-(cyclopentyloxy)-4-methoxyphenyl]-N'-(cis-4-{[4-(dimethylamino)-pyrimidin-2-yl]amino} cyclohexyl)urea;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino} cyclohexyl)methyl]-N'-(2,6-dimethylphenyl)urea;

N-(2,4-difluorophenyl)-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino} cyclohexyl)methyl]urea;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-N'-(2-ethyl-6-methylphenyl)urea;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-N'-(4-fluorophenyl)urea;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-N'-mesitylurea;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-N'-(2,4,6-trichlorophenyl)urea;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-N'-(2,4,6-tribromophenyl)urea;

N-(2,4-dibromo-6-fluorophenyl)-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]urea;

N-(2,6-diethylphenyl)-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]urea;

N-[2-chloro-6-(trifluoromethyl)phenyl]-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]urea;

N-(2-chloro-6-methylphenyl)-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]urea;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-N'-(2-ethyl-6-isopropylphenyl)urea;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-N'-(2-isopropyl-6-methylphenyl)urea;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-N'-(2-methyl-3-nitrophenyl)urea;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-N'-(2-propylphenyl)urea;

N-(2-tert-butyl-6-methylphenyl)-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]urea;

N-(2-tert-butylphenyl)-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]urea;

N-(3-chloro-2-methylphenyl)-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]urea;

N-(4-bromo-2,6-difluorophenyl)-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]urea;

N-[4-chloro-2-(trifluoromethyl)phenyl]-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]urea;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-N'-(diphenylmethyl)urea;

N-(4-bromo-2,6-dimethylphenyl)-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]urea;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-N'-(3-methyl-5-phenylisoxazol-4-yl)urea;

N-(3,5-dichlorophenyl)-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]-amino}cyclohexyl)methyl]urea;

N-(2,3-dichlorophenyl)-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]-amino}cyclohexyl)methyl]urea;

N-(2,6-diisopropylphenyl)-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]-amino}cyclohexyl)methyl]urea;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-N'-(2,3-dimethyl-6-nitrophenyl)urea;

N-(2,6-dibromo-4-fluorophenyl)-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]urea;

N-(2,6-dichlorophenyl)-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]-amino}cyclohexyl)methyl]urea;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-N'-(2-methoxy-5-methylphenyl)urea;



N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-N'-(2-methyl-6-nitrophenyl)urea;

N-(3,4-difluorophenyl)-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]-amino}cyclohexyl)methyl]urea;

N-(3,5-difluorophenyl)-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]-amino}cyclohexyl)methyl]urea; and

N-(3-chloro-4-fluorophenyl)-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]urea;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

69. The compound according to claim 52 wherein R<sub>1</sub> is selected from the group consisting of:

- (i) C<sub>1-5</sub> alkyl, and  
C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:
  - carbocyclic aryl,
  - carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
    - halogen, and
    - C<sub>1-5</sub> alkoxy,
- (ii) carbocyclyl,
- (iii) carbocyclic aryl, and  
carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - cyano,
  - nitro,
  - C<sub>1-5</sub> alkyl,
  - C<sub>1-5</sub> alkyl substituted by halogen,

- C<sub>1-5</sub> alkoxy carbonyl,
  - C<sub>1-5</sub> alkoxy,
  - C<sub>1-5</sub> alkoxy substituted by halogen,
  - mono-C<sub>1-5</sub> alkylamino,
  - di-C<sub>1-5</sub> alkylamino, and
  - carbocyclic aryl,
- (iv) heterocyclyl, and
- heterocyclyl substituted by substituent(s) independently selected from the group consisting of:
- C<sub>1-5</sub> alkyl,
  - C<sub>1-5</sub> alkoxy carbonyl, and
  - carbocyclic aryl;
- L is Formula (VII);
- Y is -C(S)NR<sub>5</sub>;
- wherein carbocyclic aryl is phenyl or naphthyl;
- carbocyclyl is bicyclo[2.2.1]heptyl;
- heterocyclyl is 2,3-dihydro-benzo[1,4]dioxinyl, benzo[1,3]dioxolyl, isoxazolyl, or thienyl; and
- halogen is fluoro, chloro, bromo, or iodo;
- or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

70. The compound according to claim 69 wherein R<sub>2</sub> is methylamino or dimethylamino; p is 0; R<sub>3</sub> and R<sub>4</sub> are hydrogen; A is a single bond; B is a single bond or -CH<sub>2</sub>-; R<sub>5</sub> is hydrogen; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
71. The compound according to claim 70 wherein R<sub>1</sub> is selected from the group consisting of:
- carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•cyano,

•C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkoxy,

•mono-C<sub>1-5</sub> alkylamino, and

•di-C<sub>1-5</sub> alkylamino;

wherein carbocyclic aryl is phenyl or naphthyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

72. The compound according to claim 1 selected from the group consisting of:

N-(4-cyanophenyl)-N'-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl})thiourea;

N-(2,4-dimethoxyphenyl)-N'-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]-amino} cyclohexyl})thiourea;

N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino} cyclohexyl})-N'-(3,4,5-trimethoxyphenyl)thiourea;

N-(3,4-dimethoxyphenyl)-N'-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]-amino} cyclohexyl})thiourea;

N-[4-(dimethylamino)-1-naphthyl]-N'-(cis-4-{{[4-(dimethylamino)-pyrimidin-2-yl]amino} cyclohexyl})thiourea;

N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino} cyclohexyl})-N'-(2,4,6-tribromophenyl)thiourea;

N-(cis-4-{{[4-(dimethylamino)pyrimidin-2-yl]amino} cyclohexyl})-N'-mesitylthiourea;

N-(4-bromo-2,6-dimethylphenyl)-N'-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)thiourea;

N-(5-chloro-2,4-dimethoxyphenyl)-N'-(cis-4-{{4-(dimethylamino)-pyrimidin-2-yl}amino}cyclohexyl)thiourea;

N-(2,4-dibromo-6-fluorophenyl)-N'-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)thiourea; and

N-(2,4-dichloro-6-methylphenyl)-N'-(cis-4-{{4-(dimethylamino)pyrimidin-2-yl}amino}cyclohexyl)thiourea;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

73. The compound according to claim 52 wherein R<sub>1</sub> is selected from the group consisting of:

(i) C<sub>1-3</sub> alkyl, and

C<sub>1-3</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•C<sub>1-5</sub> alkoxy,

•C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,

•carbocyclyl,

•carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••nitro, and

••C<sub>1-5</sub> alkoxy,

(ii) C<sub>2-5</sub> alkenyl,

(iii) carbocyclyl,

(iv) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkyl substituted by halogen, and

•C<sub>1-5</sub> alkoxy;

L is Formula (VII);

Y is -C(O)O-;

wherein carbocyclic aryl is phenyl or naphthyl;

carbocyclyl is 9*H*-fluorenyl or menthyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

74. The compound according to claim 73 wherein R<sub>2</sub> is methylamino or dimethylamino; p is 0; R<sub>3</sub> and R<sub>4</sub> are hydrogen; A is a single bond; B is a single bond or -CH<sub>2</sub>-; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

75. The compound according to claim 2 wherein Q is Formula (IV); p is 1 or 2;

R<sub>1</sub> is selected from the group consisting of:

(i) C<sub>1-16</sub> alkyl, and

C<sub>1-16</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•hydroxy,

•oxo,

•carbocyclic aryloxy,

•carbocyclic aryloxy substituted by substituent(s) independently selected from the group consisting of:

••halogen,

- C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkyl substituted by halogen, and
- C<sub>1-5</sub> alkoxy,
- heterocycloxy,
- heterocycloxy substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - C<sub>1-5</sub> alkyl, and
  - C<sub>1-5</sub> alkyl substituted by halogen,
- mono-carbocyclic arylamino,
- mono-carbocyclic arylamino substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - C<sub>1-5</sub> alkoxy, and
  - C<sub>1-5</sub> alkyl,
- carbocyclic arylsulfinyl,
- carbocyclic arylsulfinyl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - C<sub>1-5</sub> alkyl, and
  - C<sub>1-5</sub> alkyl substituted by halogen,
- carbocyclic arylsulfonyl,
- carbocyclic arylsulfonyl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - C<sub>1-5</sub> alkyl, and
  - C<sub>1-5</sub> alkyl substituted by halogen,
- carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- halogen,
- nitro,
- C<sub>1-5</sub> alkylcarbonylamino,
- C<sub>3-6</sub> cycloalkylcarbonylamino,
- C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkyl substituted by halogen,
- C<sub>1-5</sub> alkoxy, and
- C<sub>1-5</sub> alkoxy substituted by halogen, and

•heterocyclyl,

(ii) C<sub>3-12</sub> cycloalkyl, and

C<sub>3-12</sub> cycloalkyl substituted by substituent(s) independently selected from the group consisting of:

•carbocyclic aryl, and  
•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- C<sub>1-5</sub> alkoxy,
- halogen,
- C<sub>1-5</sub> alkyl, and
- C<sub>1-5</sub> alkyl substituted by halogen,

(iii) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- halogen,
- cyano,
- nitro,
- C<sub>1-10</sub> alkyl,

•C<sub>1-10</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•halogen, and

•hydroxy,

•C<sub>1-9</sub> alkoxy,

•C<sub>1-9</sub> alkoxy substituted by substituent(s) independently selected from the group consisting of:

•halogen, and

•carbocyclic aryl,

•carboxy,

•C<sub>1-5</sub> alkoxycarbonyl,

•di-C<sub>1-5</sub> alkylamino,

•C<sub>1-5</sub> alkylcarbonylamino,

•C<sub>3-6</sub> cycloalkylcarbonylamino,

•C<sub>1-5</sub> alkylthio,

•C<sub>1-5</sub> alkylsulfinyl,

•C<sub>1-5</sub> alkylsulfonyl,

•carbocyclic aryl,

(iv) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•hydroxy,

•amino,

•C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkyl substituted by halogen,

•C<sub>1-5</sub> alkoxy,

•carbocyclic aryloxy,



•carbocyclic aryloxy substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••C<sub>1-5</sub> alkyl,

••C<sub>1-5</sub> alkyl substituted by halogen, and

••C<sub>1-5</sub> alkoxy,

•heterocyclyloxy,

•heterocyclyloxy substituted by halogen,

•heterocyclyl sulfonyl,

• heterocyclyl sulfonyl substituted by C<sub>1-5</sub> alkyl,

•mono-carbocyclic arylamino,

•mono-carbocyclic arylamino substituted by halogen,

•C<sub>1-5</sub> alkylthio,

•C<sub>1-5</sub> alkylsulfinyl,

•carbocyclic arylsulfinyl,

•carbocyclic arylsulfinyl substituted by halogen,

•carbocyclic arylsulfonyl,

•carbocyclic arylsulfonyl substituted by substituents(s) independently selected from the group consisting of:

••halogen,

••C<sub>1-5</sub> alkoxy,

••C<sub>1-5</sub> alkyl, and

••C<sub>1-5</sub> alkyl substituted by halogen,

R<sub>2</sub> is selected from the group consisting of:

amino, C<sub>1-5</sub> alkyl, C<sub>1-5</sub> alkoxy, -N(R<sub>2a</sub>)(R<sub>2b</sub>), wherein R<sub>2a</sub> is hydrogen or C<sub>1-5</sub> alkyl and R<sub>2b</sub> is C<sub>1-5</sub> alkyl or C<sub>3-6</sub> cycloalkyl;

wherein carbocyclic aryl is phenyl or naphthyl;

heterocyclyl is 3,4-dihydro-1*H*-isoquinolinyl, benzo[1,3]dioxolyl, furyl, isoxazolyl, oxazolyl, pyrazolyl, pyrazinyl, pyridyl, pyrimidyl, or thienyl; and  
 halogen is fluoro, chloro, bromo, or iodo;  
 or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

76. The compound according to claim 75 wherein R<sub>1</sub> is selected from the group consisting of:

- (i) C<sub>1-16</sub> alkyl, and  
 C<sub>1-16</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:
  - oxo,
  - carbocyclic aryl,
  - carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
    - halogen,
    - C<sub>1-5</sub> alkyl,
    - C<sub>1-5</sub> alkyl substituted by halogen, and
    - C<sub>1-5</sub> alkoxy, and
    - C<sub>1-5</sub> alkoxy substituted by halogen,
- (ii) heterocyclyl, and  
 heterocyclyl substituted by substituent(s) independently selected from the group consisting of:
  - carbocyclic arylsulfinyl, and
  - carbocyclic arylsulfinyl substituted by halogen,

L is Formula (VII);

Y is a single bond or -CH<sub>2</sub>-;

R<sub>2</sub> is -N(R<sub>2a</sub>)(R<sub>2b</sub>), wherein R<sub>2a</sub> is C<sub>1-5</sub> alkyl and R<sub>2b</sub> is C<sub>1-5</sub> alkyl;

carbocyclic aryl is phenyl;

heterocyclyl is pyrazinyl; and

halogen is fluoro, chloro, or bromo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

77. The compound according to claim 76 wherein  $R_1$  is selected from the group consisting of:

(i)  $C_{1-16}$  alkyl, and

$C_{1-16}$  alkyl substituted by substituent(s) independently selected from the group consisting of:

•carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

••halogen, and

•• $C_{1-5}$  alkoxy,

(ii) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

•carbocyclic arylsulfinyl, and

•carbocyclic arylsulfinyl substituted by halogen,

$R_2$  is  $-N(R_{2a})(R_{2b})$ , wherein  $R_{2a}$  is  $C_{1-5}$  alkyl and  $R_{2b}$  is  $C_{1-5}$  alkyl;

carbocyclic aryl is phenyl;

heterocyclyl is pyrazinyl; and

halogen is fluoro or bromo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

78. The compound according to claim 77 wherein  $R_1$  is selected from the group consisting of:

heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

•carbocyclic arylsulfinyl, and

\*carbocyclic arylsulfinyl substituted by halogen,

$R_2$  is  $-N(R_{2a})(R_{2b})$ , wherein  $R_{2a}$  is  $C_{1-5}$  alkyl and  $R_{2b}$  is  $C_{1-5}$  alkyl;

carbocyclic aryl is phenyl;

heterocyclyl is pyrazinyl; and

halogen is fluoro;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

79. The compound according to any one of claims 76 to 78 wherein p is 1 and T is  $C_{1-5}$  alkyl;  
 $R_3$  and  $R_4$  are both hydrogen; A and B are both single bonds;  
or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

80. The compound according to claim 1 selected from the group consisting of:

$N^2$ -{cis-4-[(3,5-dimethoxybenzyl)amino]cyclohexyl}- $N^4,N^4,5$ -  
trimethylpyrimidine-2,4-diamine;

$N^2$ -{cis-4-[(3-bromobenzyl)amino]cyclohexyl}- $N^4,N^4,5,6$ -tetramethylpyrimidine-  
2,4-diamine;

$N^2$ -{cis-4-[(3,4-difluorobenzyl)amino]cyclohexyl}- $N^4,N^4,5,6$ -  
tetramethylpyrimidine-2,4-diamine; and

$N^2$ -[cis-4-({6-[(3,4-difluorophenyl)sulfinyl]pyrazin-2-yl} amino)cyclohexyl]-  
 $N^4,N^4,5$ -trimethylpyrimidine-2,4-diamine;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

81. The compound according to claim 1 is:

$N^2$ -[cis-4-({6-[(3,4-difluorophenyl)sulfinyl]pyrazin-2-yl} amino)cyclohexyl]-  
 $N^4,N^4,5$ -trimethylpyrimidine-2,4-diamine;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

82. The compound according to claim 75 wherein  $R_1$  is selected from the group consisting of:

- (i) C<sub>1-16</sub> alkyl, and  
C<sub>1-16</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:
- °hydroxy,
  - °carbocyclic aryloxy,
  - °carbocyclic aryloxy substituted by substituent(s) independently selected from the group consisting of:
    - \*\*halogen,
    - \*\*C<sub>1-5</sub> alkyl,
    - \*\*C<sub>1-5</sub> alkyl substituted by halogen, and
    - \*\*C<sub>1-5</sub> alkoxy,
  - °heterocyclyloxy,
  - °heterocyclyloxy substituted by substituent(s) independently selected from the group consisting of:
    - \*\*halogen,
    - \*\*C<sub>1-5</sub> alkyl, and
    - \*\*C<sub>1-5</sub> alkyl substituted by halogen,
  - °mono-carbocyclic arylamino,
  - °mono-carbocyclic arylamino substituted by substituent(s) independently selected from the group consisting of:
    - \*\*halogen,
    - \*\*C<sub>1-5</sub> alkoxy, and
    - \*\*C<sub>1-5</sub> alkyl,
  - °carbocyclic arylsulfinyl,
  - °carbocyclic arylsulfinyl substituted by substituent(s) independently selected from the group consisting of:
    - \*\*halogen,
    - \*\*C<sub>1-5</sub> alkyl, and

\*\*C<sub>1-5</sub> alkyl substituted by halogen,

\*carbocyclic arylsulfonyl,

\*carbocyclic arylsulfonyl substituted by substituent(s) independently selected from the group consisting of:

\*\*halogen,

\*\*C<sub>1-5</sub> alkyl, and

\*\*C<sub>1-5</sub> alkyl substituted by halogen,

\*carbocyclic aryl,

\*carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

\*\*halogen,

\*\*C<sub>1-5</sub> alkyl,

\*\*C<sub>1-5</sub> alkyl substituted by halogen, and

\*\*C<sub>1-5</sub> alkoxy,

(ii) C<sub>3-12</sub> cycloalkyl, and

C<sub>3-12</sub> cycloalkyl substituted by substituent(s) independently selected from the group consisting of:

\*carbocyclic aryl, and

\*carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

\*\*C<sub>1-5</sub> alkoxy,

\*\*halogen,

\*\*C<sub>1-5</sub> alkyl, and

\*\*C<sub>1-5</sub> alkyl substituted by halogen,

(iii) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

\*halogen,

- cyano,

- nitro,

- C<sub>1-10</sub> alkyl,

- C<sub>1-10</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

- halogen, and

- hydroxy,

- C<sub>1-9</sub> alkoxy,

- C<sub>1-9</sub> alkoxy substituted by halogen,

- carboxy,

- C<sub>1-5</sub> alkoxycarbonyl,

- di-C<sub>1-5</sub> alkylamino,

- C<sub>1-5</sub> alkylcarbonylamino,

- C<sub>3-6</sub> cycloalkylcarbonylamino,

- C<sub>1-5</sub> alkylsulfonyl, and

- carbocyclic aryl,

(iv) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- halogen,

- hydroxy,

- amino,

- C<sub>1-5</sub> alkyl,

- C<sub>1-5</sub> alkyl substituted by halogen,

- C<sub>1-5</sub> alkoxy,

- carbocyclic aryloxy,

- carbocyclic aryloxy substituted by substituent(s) independently selected from the group consisting of:

- halogen,
- C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkyl substituted by halogen, and
- C<sub>1-5</sub> alkoxy,
- heterocyclyloxy,
- heterocyclyloxy substituted by halogen,
- heterocyclyl sulfonyl,
- heterocyclyl sulfonyl substituted by C<sub>1-5</sub> alkyl,
- mono-carbocyclic arylamino,
- mono-carbocyclic arylamino substituted by halogen,
- C<sub>1-5</sub> alkylthio,
- C<sub>1-5</sub> alkylsulfinyl,
- carbocyclic aryl/sulfonyl,
- carbocyclic aryl/sulfonyl substituted by substituents(s) independently selected from the group consisting of:

- halogen,
- C<sub>1-5</sub> alkoxy,
- C<sub>1-5</sub> alkyl, and
- C<sub>1-5</sub> alkyl substituted by halogen,

L is Formula (VII);

Y is -C(O)-;

R<sub>2</sub> is selected from the group consisting of:

amino, C<sub>1-5</sub> alkyl, C<sub>1-5</sub> alkoxy, -N(R<sub>2a</sub>)(R<sub>2b</sub>), wherein R<sub>2a</sub> is hydrogen or C<sub>1-5</sub> alkyl and R<sub>2b</sub> is C<sub>1-5</sub> alkyl or C<sub>3-6</sub> cycloalkyl;

wherein carbocyclic aryl is phenyl;

heterocyclyl is benzo[1,3]dioxolyl, furyl, isoxazolyl, oxazolyl, pyrazolyl,

pyrazinyl, pyridyl, pyrimidyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo;



or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

83. The compound according to claim 82 wherein R<sub>1</sub> is selected from the group consisting of:

- (i) C<sub>1-16</sub> alkyl, and  
C<sub>1-16</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:
  - hydroxy,
  - carbocyclic aryloxy,
  - carbocyclic aryloxy substituted by substituent(s) independently selected from the group consisting of:
    - halogen,
    - C<sub>1-5</sub> alkyl,
    - C<sub>1-5</sub> alkyl substituted by halogen, and
    - C<sub>1-5</sub> alkoxy,
  - heterocyclyloxy,
  - heterocyclyloxy substituted by halogen,
  - mono-carbocyclic arylamino,
  - mono-carbocyclic arylamino substituted by substituent(s) independently selected from the group consisting of:
    - halogen,
    - C<sub>1-5</sub> alkoxy, and
    - C<sub>1-5</sub> alkyl,
  - carbocyclic arylsulfinyl,
  - carbocyclic arylsulfinyl substituted by substituent(s) independently selected from the group consisting of:
    - halogen,
    - C<sub>1-5</sub> alkyl, and
    - C<sub>1-5</sub> alkyl substituted by halogen,

•carbocyclic arylsulfonyl,

•carbocyclic arylsulfonyl substituted by substituent(s) independently selected from the group consisting of:

••C<sub>1-5</sub> alkyl, and

••C<sub>1-5</sub> alkyl substituted by halogen,

•carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••C<sub>1-5</sub> alkyl, and

••C<sub>1-5</sub> alkyl substituted by halogen,

(ii) C<sub>3-12</sub> cycloalkyl, and

C<sub>3-12</sub> cycloalkyl substituted by substituent(s) independently selected from the group consisting of:

•carbocyclic aryl, and

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

••C<sub>1-5</sub> alkoxy,

••halogen,

••C<sub>1-5</sub> alkyl, and

••C<sub>1-5</sub> alkyl substituted by halogen,

(iii) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•cyano,

•nitro,

•C<sub>1-10</sub> alkyl,

•C<sub>1-10</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•halogen, and

•hydroxy,

•C<sub>1-9</sub> alkoxy,

•C<sub>1-9</sub> alkoxy substituted by halogen,

•carboxy,

•C<sub>1-5</sub> alkoxycarbonyl, and

•C<sub>1-5</sub> alkylsulfonyl,

(iv) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkyl substituted by halogen,

•C<sub>1-5</sub> alkoxy,

•carbocyclic aryloxy,

•carbocyclic aryloxy substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•C<sub>1-5</sub> alkyl,

•C<sub>1-5</sub> alkyl substituted by halogen, and

•C<sub>1-5</sub> alkoxy,

•heterocyclyloxy,

•heterocyclyloxy substituted by halogen,

•heterocyclyl sulfonyl,

•heterocyclyl sulfonyl substituted by C<sub>1-5</sub> alkyl,

•mono-carbocyclic arylamino,

•mono-carbocyclic arylamino substituted by halogen,  
 •C<sub>1-5</sub> alkylthio,  
 •carbocyclic arylsulfonyl,  
 •carbocyclic arylsulfonyl substituted by substituent(s) independently  
 selected from the group consisting of:

•halogen,  
 •C<sub>1-5</sub> alkyl, and  
 •C<sub>1-5</sub> alkyl substituted by halogen,

R<sub>2</sub> is selected from the group consisting of:

C<sub>1-5</sub> alkoxy, -N(R<sub>2a</sub>)(R<sub>2b</sub>), wherein R<sub>2a</sub> is hydrogen or C<sub>1-5</sub> alkyl and R<sub>2b</sub> is C<sub>1-5</sub>  
 alkyl;

wherein carbocyclic aryl is phenyl;

heterocyclyl is benzo[1,3]dioxolyl, furyl, isoxazolyl, oxazolyl, pyrazolyl,  
 pyridyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

84. The compound according to claim 83 wherein R<sub>1</sub> is selected from the group consisting of:

- (i) C<sub>1-16</sub> alkyl, and  
 C<sub>1-16</sub> alkyl substituted by substituent(s) independently selected from the  
 group consisting of:  
 •hydroxy,  
 •carbocyclic aryloxy,  
 •carbocyclic aryloxy substituted by substituent(s) independently selected  
 from the group consisting of:  
 •halogen,  
 •C<sub>1-5</sub> alkyl,  
 •C<sub>1-5</sub> alkyl substituted by halogen, and

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••C<sub>1-5</sub> alkoxy,

•heterocyclyloxy,

•heterocyclyloxy substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••C<sub>1-5</sub> alkyl, and••C<sub>1-5</sub> alkyl substituted by halogen,

•mono-carbocyclic arylamino,

•mono-carbocyclic arylamino substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••C<sub>1-5</sub> alkoxy, and••C<sub>1-5</sub> alkyl,

•carbocyclic arylsulfinyl,

•carbocyclic arylsulfinyl substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••C<sub>1-5</sub> alkyl, and••C<sub>1-5</sub> alkyl substituted by halogen,

•carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••C<sub>1-5</sub> alkyl, and••C<sub>1-5</sub> alkyl substituted by halogen,(ii) C<sub>3-12</sub> cycloalkyl, and

C<sub>3-12</sub> cycloalkyl substituted by substituent(s) independently selected from the group consisting of:

- carbocyclic aryl, and

- carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- C<sub>1-5</sub> alkoxy,
- halogen,
- C<sub>1-5</sub> alkyl, and
- C<sub>1-5</sub> alkyl substituted by halogen,

(iii) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- halogen,
- cyano,
- nitro,
- C<sub>1-10</sub> alkyl,
- C<sub>1-10</sub> alkyl substituted by halogen,
- C<sub>1-9</sub> alkoxy, and
- C<sub>1-9</sub> alkoxy substituted by halogen,

(iv) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- halogen,
- C<sub>1-5</sub> alkyl,
- C<sub>1-5</sub> alkyl substituted by halogen,
- C<sub>1-5</sub> alkoxy,
- carbocyclic aryloxy,
- carbocyclic aryloxy substituted by substituent(s) independently selected from the group consisting of:
  - halogen,

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••C<sub>1-5</sub> alkyl,••C<sub>1-5</sub> alkyl substituted by halogen, and••C<sub>1-5</sub> alkoxy,•C<sub>1-5</sub> alkylthio,

•carbocyclic arylsulfonyl,

•carbocyclic arylsulfonyl substituted by halogen,

R<sub>2</sub> is selected from the group consisting of:-N(R<sub>2a</sub>)(R<sub>2b</sub>), wherein R<sub>2a</sub> is hydrogen or C<sub>1-5</sub> alkyl and R<sub>2b</sub> is C<sub>1-5</sub> alkyl;

wherein carbocyclic aryl is phenyl;

heterocyclyl is benzo[1,3]dioxolyl, furyl, pyrazolyl, pyridyl, or thienyl;

and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

85. The compound according to any one of claims 82 to 84 wherein p is 1 and T is C<sub>1-5</sub> alkyl; R<sub>3</sub> and R<sub>4</sub> are both hydrogen; A is a single bond and B is a single bond or -CH<sub>2</sub>-; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

86. The compound according to claim 1 selected from the group consisting of:

N-[(cis-4-[[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino]cyclohexyl)methyl]-3,5-bis(trifluoromethyl)benzamide;

N-[(cis-4-[[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino]cyclohexyl)methyl]-3,5-bis(trifluoromethyl)benzamide;

N-[(cis-4-[[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino]cyclohexyl)methyl]-3,4-difluorobenzamide;

3,5-dichloro-N-[(cis-4-[[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino]cyclohexyl)methyl]benzamide;

N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)methyl]-3,4-difluorobenzamide;

N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)methyl]-3,5-dimethoxybenzamide;

N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)methyl]-3-fluoro-4-methylbenzamide;

N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)methyl]-3-(trifluoromethyl)benzamide;

N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)methyl]-3-(trifluoromethoxy)benzamide;

4-bromo-N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)methyl]-3-methylbenzamide;

N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)methyl]-3-fluoro-4-(trifluoromethyl)benzamide;

3,5-dichloro-N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)methyl]benzamide;

3,4-dichloro-N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)methyl]benzamide;

4-chloro-N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)methyl]benzamide;

4-chloro-N-[(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)methyl]benzamide;

N-[cis-4-({[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}methyl)cyclohexyl]-3,5-dimethoxybenzamide;

4-bromo-N-[cis-4-({[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}methyl)cyclohexyl]benzamide;

4-bromo-N-[cis-4-({[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}methyl)cyclohexyl]-3-methylbenzamide;



3,5-dichloro-N-[cis-4-({[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}methyl)cyclohexyl]benzamide;

3,4-dichloro-N-[cis-4-({[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}methyl)cyclohexyl]benzamide;

N-[cis-4-({[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}methyl)cyclohexyl]-3,5-bis(trifluoromethyl)benzamide;

N-[cis-4-({[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}methyl)cyclohexyl]-3,4-difluorobenzamide;

4-bromo-N-[cis-4-({[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}methyl)cyclohexyl]benzamide;

4-bromo-N-[cis-4-({[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}methyl)cyclohexyl]-3-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(2-fluorophenoxy)nicotinamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3,4,5-trimethoxybenzamide;

N-(4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2,2-diphenylacetamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-4-methylbenzamide;

4-chloro-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

3-chloro-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3,4-difluorobenzamide;

N-(cis-4-{{4-(dimethylamino)-6-methylpyrimidin-2-yl}amino}cyclohexyl)-3-methylbenzamide;

N-(cis-4-{{4-(dimethylamino)-6-methylpyrimidin-2-yl}amino}cyclohexyl)-3-methoxybenzamide;

N-(cis-4-{{4-(dimethylamino)-6-methylpyrimidin-2-yl}amino}cyclohexyl)-4-fluorobenzamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-3-methylbenzamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-3-methoxybenzamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-4-methylbenzamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-3,4-difluorobenzamide;

3-chloro-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)benzamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-2-(3-methylphenoxy)nicotinamide;

2-(4-bromophenoxy)-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)nicotinamide;

2-(4-chlorophenoxy)-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)nicotinamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-2-(4-fluorophenoxy)nicotinamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-2-(3-fluorophenoxy)nicotinamide;

2-(2-bromophenoxy)-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)nicotinamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-2-(3-methoxyphenoxy)nicotinamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-2-(4-methoxyphenoxy)nicotinamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-2-(4-iodophenoxy)nicotinamide;

2-(3,4-dichlorophenoxy)-N-(cis-4-{{5-methyl-4-(methylamino)pyrimidin-2-yl}amino}cyclohexyl)acetamide;

2-(2,3-dichlorophenoxy)-N-(cis-4-{{5-methyl-4-(methylamino)pyrimidin-2-yl}amino}cyclohexyl)acetamide;

2-[(3,4-difluorophenyl)sulfonyl]-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)nicotinamide;

N-(cis-4-{{4-(dimethylamino)-5-ethylpyrimidin-2-yl}amino}cyclohexyl)-3,4-difluorobenzamide;

N-[cis-4-{{4-[ethyl(methyl)amino]-5-methylpyrimidin-2-yl}amino}cyclohexyl]-3,4-difluorobenzamide;

N-(cis-4-{{4-(dimethylamino)-6-methylpyrimidin-2-yl}amino}cyclohexyl)-3,5-dimethoxybenzamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-2-(2-methoxyphenoxy)nicotinamide;

2-(2-chlorophenoxy)-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)nicotinamide;

2-(3-chlorophenoxy)-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)nicotinamide;

2-(3-bromophenoxy)-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)nicotinamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-2-[3-(trifluoromethyl)phenoxy]nicotinamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)-2-(3-fluorophenoxy)acetamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)-2-(3-methoxyphenoxy)acetamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)-2-[3-(trifluoromethyl)phenoxy]acetamide;

2-(3-chlorophenoxy)-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)acetamide;

2-[(5-chloropyridin-3-yl)oxy]-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)acetamide;

N-(cis-4-{{4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl}amino} cyclohexyl)-3,4-difluorobenzamide;

2-(3,4-difluorophenyl)-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)-2-hydroxyacetamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)-2-hydroxy-2-(4-methoxyphenyl)acetamide;

2-(2,3-difluorophenyl)-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)-2-hydroxyacetamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)-2-hydroxy-2-[3-(trifluoromethyl)phenyl]acetamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)-2-[(2-(trifluoromethyl)phenyl)sulfinyl]acetamide;

2-[(2-chlorophenyl)sulfinyl]-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)acetamide;

2-[(3-bromophenyl)sulfinyl]-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)acetamide;

2-[(3,4-difluorophenyl)sulfinyl]-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)acetamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-3-(trifluoromethyl)benzamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-3-fluorobenzamide;

3-bromo-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)benzamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-4-(trifluoromethoxy)benzamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-4-fluorobenzamide;

3,4-dichloro-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)benzamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-3,5-bis(trifluoromethyl)benzamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-3,5-dimethoxybenzamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-2,4-difluorobenzamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-2,5-difluorobenzamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-2,3,4-trifluorobenzamide;

4-chloro-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)benzamide;

3-cyano-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)benzamide;

4-cyano-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)benzamide;

2-[(3,4-dichlorophenyl)sulfinyl]-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-{[3-(trifluoromethyl)phenyl]sulfinyl}acetamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-{[3-(trifluoromethyl)phenyl]sulfonyl}acetamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(isopropylthio)nicotinamide;

2-(tert-butylthio)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(propylthio)nicotinamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3-(methylsulfonyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-fluorobenzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-(trifluoromethyl)benzamide;

3-cyano-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

4-cyano-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3-(trifluoromethyl)benzamide;

3-cyano-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3-methylbenzamide;

3-chloro-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

3-bromo-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3,5-dimethoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3,5-bis(trifluoromethyl)benzamide;

3,4-dichloro-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-4-(trifluoromethoxy)benzamide;

4-cyano-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-4-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-4-fluorobenzamide;

4-chloro-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-2-methoxybenzamide;

4-bromo-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-4-(trifluoromethyl)benzamide;

N-(cis-4-{{4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl}amino} cyclohexyl)-3-methoxybenzamide;

5-bromo-N-(cis-4-{{4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl}amino} cyclohexyl)-2-furamide;

N-(cis-4-{{4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl}amino} cyclohexyl)-5-methylisoxazole-3-carboxamide;

2-(3,5-difluorophenyl)-N-(cis-4-{{4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl}amino} cyclohexyl)-2-hydroxyacetamide;

N-(cis-4-{{4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl}amino} cyclohexyl)-2-methyl-1,3-oxazole-4-carboxamide;

N-(cis-4-{{4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl}amino} cyclohexyl)-2,6-dimethoxynicotinamide;

4-bromo-N-(cis-4-{{4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl}amino} cyclohexyl)benzamide;

N-(cis-4-{{4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl}amino} cyclohexyl)-4-(trifluoromethyl)benzamide;

4-bromo-N-(cis-4-{{4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl}amino} cyclohexyl)-3-methylbenzamide;

N-(cis-4-{{4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl}amino} cyclohexyl)-3-fluoro-4-methylbenzamide;

N-(cis-4-{{4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl}amino} cyclohexyl)-4-fluoro-3-methylbenzamide;

N-(cis-4-{{4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl}amino} cyclohexyl)-3-ethylbenzamide;

N-(cis-4-{{4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl}amino} cyclohexyl)-3-(trifluoromethoxy)benzamide;

5-bromo-N-(cis-4-{{4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl}amino} cyclohexyl)nicotinamide;



N-(cis-4-{{4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl}amino} cyclohexyl)-5-methylthiophene-2-carboxamide

N-(cis-4-{{4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl}amino} cyclohexyl)-6-(trifluoromethyl)nicotinamide;

N-(cis-4-{{4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl}amino} cyclohexyl)-3,5-diethoxybenzamide;

N-(cis-4-{{4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl}amino} cyclohexyl)-3-ethoxybenzamide;

N-(cis-4-{{4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl}amino} cyclohexyl)-3-isopropoxybenzamide;

3,5-dichloro-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)benzamide;

4-bromo-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)-3-methylbenzamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)-4-ethoxybenzamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)-4-fluoro-3-methylbenzamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)-3-fluoro-4-methylbenzamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)-3-ethylbenzamide;

N-(cis-4-{{4-(dimethylamino)-6-methylpyrimidin-2-yl}amino} cyclohexyl)-3,5-bis(trifluoromethyl)benzamide;

N-(cis-4-{{4-(dimethylamino)-6-methylpyrimidin-2-yl}amino} cyclohexyl)-3-fluoro-4-(trifluoromethyl)benzamide;

N-(cis-4-{{4-(dimethylamino)-6-methylpyrimidin-2-yl}amino} cyclohexyl)-3-fluoro-5-(trifluoromethyl)benzamide;

3-chloro-N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-4-fluorobenzamide;

N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-4-fluoro-3-methylbenzamide;

N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-fluoro-4-methylbenzamide;

3,5-dichloro-N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-(trifluoromethoxy)benzamide;

N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3,5-difluorobenzamide;

4-bromo-N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-methylbenzamide;

N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-ethylbenzamide;

N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-4-(trifluoromethyl)benzamide;

4-bromo-N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-4-ethylbenzamide;

N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3,5-diethoxybenzamide;

N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-ethoxybenzamide;

N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-isopropoxybenzamide;

5-bromo-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;

5-bromo-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2-furamide;

5-chloro-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2-furamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3-fluoro-5-(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2,2-difluoro-1,3-benzodioxole-5-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3-ethoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3-isopropoxybenzamide;

5-bromo-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-furamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3,5-diethoxybenzamide;

4-chloro-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3-(trifluoromethyl)benzamide;

5-bromo-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;

3,4-dichloro-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

3-chloro-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-4-(trifluoromethoxy)benzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-4-methoxy-3-(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-4-methoxy-3-(trifluoromethyl)benzamide;

2-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-methylpropanamide;

1-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide;

1-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)cyclobutanecarboxamide;

1-(2,4-dichlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide;

2-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2-methylpropanamide;

1-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide;

1-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)cyclobutanecarboxamide;

1-(2,4-dichlorophenyl)-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide;

2-[3,5-bis(trifluoromethyl)phenyl]-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-4-[2,2,2-trifluoro-1-hydroxy-1-(trifluoromethyl)ethyl]benzamide;

2-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-1-(4-methylphenyl)cyclopropanecarboxamide;

2-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)propanamide;

2-(4-chlorophenyl)-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-2-hydroxyacetamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-1-(4-methoxyphenyl)cyclopropanecarboxamide;

N<sup>2</sup>-(3-chlorophenyl)-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-N<sup>2</sup>-methylglycinamide;

N<sup>2</sup>-(3,4-dichlorophenyl)-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-N<sup>2</sup>-methylglycinamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-N<sup>2</sup>-methyl-N<sup>2</sup>-(3-methylphenyl)glycinamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-N<sup>2</sup>-(3-fluorophenyl)-N<sup>2</sup>-methylglycinamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-N<sup>2</sup>-(4-fluorophenyl)-N<sup>2</sup>-methylglycinamide;

N<sup>2</sup>-(4-chlorophenyl)-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-N<sup>2</sup>-methylglycinamide;

N<sup>2</sup>-(3,4-difluorophenyl)-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-N<sup>2</sup>-methylglycinamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-N<sup>2</sup>-(3-methoxyphenyl)-N<sup>2</sup>-methylglycinamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-N<sup>2</sup>-(4-methoxyphenyl)-N<sup>2</sup>-methylglycinamide;

2-((3,4-difluorophenyl)amino)-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)nicotinamide;

2-(3,4-dichlorophenoxy)-N-(cis-4-{{4-methyl-6-(methylamino)pyrimidin-2-yl}amino}cyclohexyl)acetamide;

trans-2-(4-chlorophenyl)-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)cyclopropanecarboxamide;

trans-2-(3-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide;

trans-2-(3,4-difluorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide;

trans-2-(3,4-dichlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide;

trans-2-[3,5-bis(trifluoromethyl)phenyl]-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide;

2-[(4-chlorophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;

2-[(3-chlorophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;

2-[(4-bromophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-{[4-(trifluoromethyl)phenyl]sulfonyl}nicotinamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-[1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl]oxyacetamide;

2-[(2-chlorophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;

2-[(3-chlorophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;

3,4-dichloro-N-(cis-4-{[4-methoxy-5-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-[cis-4-(4-dimethylamino-5-methylpyrimidin-2-ylamino)-cyclohexyl]-2-phenoxy-nicotinamide;

N-[cis-4-(4-dimethylamino-6-methylpyrimidin-2-ylamino)-cyclohexyl]-2-phenoxy-nicotinamide;

3-chloro-N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-4-fluoro-benzamide;

4-chloro-N-[cis-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3-fluoro-benzamide;

3-chloro-N-[cis-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-5-fluoro-benzamide;

N-[cis-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3,4,5-trifluoro-benzamide;

3-chloro-4-fluoro-N-[cis-4-(5-methyl-4-methylamino-pyrimidin-2-ylamino)-cyclohexyl]-benzamide;

4-chloro-N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3-fluoro-benzamide;

3-chloro-N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-5-fluoro-benzamide;

N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3,4,5-trifluoro-benzamide;

N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3,5-difluoro-benzamide; and

2-(3,4-difluoro-phenyl)-N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-acetamide;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

87. The compound according to claim 1 selected from the group consisting of:

N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)methyl]-3,5-bis(trifluoromethyl)benzamide;

N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)methyl]-3,5-dimethoxybenzamide;

N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)methyl]-3-(trifluoromethyl)benzamide;

4-bromo-N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)methyl]-3-methylbenzamide;

3,5-dichloro-N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)methyl]benzamide;

3,4-dichloro-N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)methyl]benzamide;

3,5-dichloro-N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}methyl)cyclohexyl]benzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(2-fluorophenoxy)nicotinamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3,4,5-trimethoxybenzamide;

N-(4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2,2-diphenylacetamide;

4-chloro-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

3-chloro-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3,4-difluorobenzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-methoxybenzamide;



N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-4-fluorobenzamide;

N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3-methylbenzamide;

N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3-methoxybenzamide;

N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-4-methylbenzamide;

N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3,4-difluorobenzamide;

3-chloro-N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(3-methylphenoxy)nicotinamide;

2-(4-bromophenoxy)-N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;

2-(4-chlorophenoxy)-N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;

N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(4-fluorophenoxy)nicotinamide;

N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(3-fluorophenoxy)nicotinamide;

2-(2-bromophenoxy)-N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;

N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(3-methoxyphenoxy)nicotinamide;

N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(4-methoxyphenoxy)nicotinamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-2-(4-iodophenoxy)nicotinamide;

2-(3,4-dichlorophenoxy)-N-(cis-4-{{5-methyl-4-(methylamino)pyrimidin-2-yl}amino}cyclohexyl)acetamide;

2-(2,3-dichlorophenoxy)-N-(cis-4-{{5-methyl-4-(methylamino)pyrimidin-2-yl}amino}cyclohexyl)acetamide;

2-[(3,4-difluorophenyl)sulfonyl]-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)nicotinamide;

N-[cis-4-{{4-[ethyl(methyl)amino]-5-methylpyrimidin-2-yl}amino}cyclohexyl]-3,4-difluorobenzamide;

N-(cis-4-{{4-(dimethylamino)-6-methylpyrimidin-2-yl}amino}cyclohexyl)-3,5-dimethoxybenzamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-2-(2-methoxyphenoxy)nicotinamide;

2-(2-chlorophenoxy)-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)nicotinamide;

2-(3-chlorophenoxy)-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)nicotinamide;

2-(3-bromophenoxy)-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)nicotinamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-2-[3-(trifluoromethyl)phenoxy]nicotinamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-2-(3-fluorophenoxy)acetamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-2-(3-methoxyphenoxy)acetamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-2-[3-(trifluoromethyl)phenoxy]acetamide;

2-(3-chlorophenoxy)-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)acetamide;

2-[[5-chloropyridin-3-yl]oxy]-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)acetamide;

N-(cis-4-{{4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl}amino}cyclohexyl)-3,4-difluorobenzamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-2-hydroxy-2-(4-methoxyphenyl)acetamide;

2-(2,3-difluorophenyl)-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-2-hydroxyacetamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-2-hydroxy-2-[3-(trifluoromethyl)phenyl]acetamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-2-[[2-(trifluoromethyl)phenyl]sulfinyl]acetamide;

2-[(2-chlorophenyl)sulfinyl]-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)acetamide;

2-[(3-bromophenyl)sulfinyl]-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)acetamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-3-(trifluoromethyl)benzamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-3-fluorobenzamide;

3-bromo-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)benzamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-4-(trifluoromethoxy)benzamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-4-fluorobenzamide;

3,4-dichloro-N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})benzamide;

N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})-3,5-bis(trifluoromethyl)benzamide;

N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})-3,5-dimethoxybenzamide;

N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})-2,4-difluorobenzamide;

N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})-2,5-difluorobenzamide;

N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})-2,3,4-trifluorobenzamide;

4-chloro-N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})benzamide;

3-cyano-N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})benzamide;

4-cyano-N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})benzamide;

N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})-2-(isopropylthio)nicotinamide;

N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl})-2-(propylthio)nicotinamide;

N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl})-3-(trifluoromethyl)benzamide;

3-cyano-N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl})benzamide;

4-cyano-N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl})benzamide;

N-(cis-4-{{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino} cyclohexyl)-3-(trifluoromethyl)benzamide;

3-cyano-N-(cis-4-{{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino} cyclohexyl)benzamide;

N-(cis-4-{{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino} cyclohexyl)-3-methylbenzamide;

3-chloro-N-(cis-4-{{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino} cyclohexyl)benzamide;

3-bromo-N-(cis-4-{{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino} cyclohexyl)benzamide;

N-(cis-4-{{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino} cyclohexyl)-3,5-dimethoxybenzamide;

N-(cis-4-{{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino} cyclohexyl)-3,5-bis(trifluoromethyl)benzamide;

3,4-dichloro-N-(cis-4-{{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino} cyclohexyl)benzamide;

4-cyano-N-(cis-4-{{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino} cyclohexyl)benzamide;

N-(cis-4-{{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino} cyclohexyl)-4-methylbenzamide;

N-(cis-4-{{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino} cyclohexyl)-4-fluorobenzamide;

4-chloro-N-(cis-4-{{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino} cyclohexyl)benzamide;

4-bromo-N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino} cyclohexyl)benzamide;

N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino} cyclohexyl)-4-(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3-methoxybenzamide;

5-bromo-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-2-furamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-2,6-dimethoxynicotinamide;

4-bromo-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-4-(trifluoromethyl)benzamide;

4-bromo-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3-fluoro-4-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-4-fluoro-3-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3-(trifluoromethoxy)benzamide;

5-bromo-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-5-methylthiophene-2-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3,5-diethoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3-ethoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3-isopropoxybenzamide;

3,5-dichloro-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)benzamide;

4-bromo-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-3-methylbenzamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-4-fluoro-3-methylbenzamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-3-fluoro-4-methylbenzamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-3-ethylbenzamide;

N-(cis-4-{{4-(dimethylamino)-6-methylpyrimidin-2-yl}amino}cyclohexyl)-3,5-bis(trifluoromethyl)benzamide;

N-(cis-4-{{4-(dimethylamino)-6-methylpyrimidin-2-yl}amino}cyclohexyl)-3-fluoro-4-(trifluoromethyl)benzamide;

N-(cis-4-{{4-(dimethylamino)-6-methylpyrimidin-2-yl}amino}cyclohexyl)-3-fluoro-5-(trifluoromethyl)benzamide;

3-chloro-N-(cis-4-{{4-(dimethylamino)-6-methylpyrimidin-2-yl}amino}cyclohexyl)-4-fluorobenzamide;

N-(cis-4-{{4-(dimethylamino)-6-methylpyrimidin-2-yl}amino}cyclohexyl)-4-fluoro-3-methylbenzamide;

N-(cis-4-{{4-(dimethylamino)-6-methylpyrimidin-2-yl}amino}cyclohexyl)-3-fluoro-4-methylbenzamide;

3,5-dichloro-N-(cis-4-{{4-(dimethylamino)-6-methylpyrimidin-2-yl}amino}cyclohexyl)benzamide;

N-(cis-4-{{4-(dimethylamino)-6-methylpyrimidin-2-yl}amino}cyclohexyl)-3-(trifluoromethoxy)benzamide;

N-(cis-4-{{4-(dimethylamino)-6-methylpyrimidin-2-yl}amino}cyclohexyl)-3,5-difluorobenzamide;

4-bromo-N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-methylbenzamide;

N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-ethylbenzamide;

4-bromo-N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-4-ethylbenzamide;

N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3,5-diethoxybenzamide;

N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-ethoxybenzamide;

N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-isopropoxybenzamide;

5-bromo-N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;

5-bromo-N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2-furamide;

5-chloro-N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2-furamide;

N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3-fluoro-5-(trifluoromethyl)benzamide;

N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2,2-difluoro-1,3-benzodioxole-5-carboxamide;

N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3-ethoxybenzamide;

5-bromo-N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-furamide;



N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3,5-diethoxybenzamide;

4-chloro-N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3-(trifluoromethyl)benzamide;

5-bromo-N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;

3,4-dichloro-N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

3-chloro-N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-4-(trifluoromethoxy)benzamide;

N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-4-methoxy-3-(trifluoromethyl)benzamide;

N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-4-methoxy-3-(trifluoromethyl)benzamide;

2-(4-chlorophenyl)-N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-methylpropanamide

1-(4-chlorophenyl)-N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide;

1-(4-chlorophenyl)-N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)cyclobutanecarboxamide;

1-(2,4-dichlorophenyl)-N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide;

2-(4-chlorophenyl)-N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2-methylpropanamide

1-(4-chlorophenyl)-N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide;

1-(4-chlorophenyl)-N-(cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)cyclobutanecarboxamide;

1-(2,4-dichlorophenyl)-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino} cyclohexyl)cyclopropanecarboxamide;

2-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino} cyclohexyl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino} cyclohexyl)-1-(4-methylphenyl)cyclopropanecarboxamide;

2-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino} cyclohexyl)propanamide

2-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino} cyclohexyl)-2-hydroxyacetamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino} cyclohexyl)-1-(4-methoxyphenyl)cyclopropanecarboxamide;

N<sup>2</sup>-(3-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino} cyclohexyl)-N<sup>2</sup>-methylglycinamide;

N<sup>2</sup>-(3,4-dichlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino} cyclohexyl)-N<sup>2</sup>-methylglycinamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino} cyclohexyl)-N<sup>2</sup>-methyl-N<sup>2</sup>-(3-methylphenyl)glycinamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino} cyclohexyl)-N<sup>2</sup>-(3-fluorophenyl)-N<sup>2</sup>-methylglycinamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino} cyclohexyl)-N<sup>2</sup>-(4-fluorophenyl)-N<sup>2</sup>-methylglycinamide;

N<sup>2</sup>-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino} cyclohexyl)-N<sup>2</sup>-methylglycinamide;

N<sup>2</sup>-(3,4-difluorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino} cyclohexyl)-N<sup>2</sup>-methylglycinamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino} cyclohexyl)-N<sup>2</sup>-(3-methoxyphenyl)-N<sup>2</sup>-methylglycinamide;

2-(3,4-dichlorophenoxy)-N-(cis-4-{{4-methyl-6-(methylamino)pyrimidin-2-yl}amino} cyclohexyl)acetamide;

trans-2-(4-chlorophenyl)-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)cyclopropanecarboxamide;

trans-2-(3-chlorophenyl)-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)cyclopropanecarboxamide;

trans-2-(3,4-difluorophenyl)-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)cyclopropanecarboxamide;

trans-2-(3,4-dichlorophenyl)-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)cyclopropanecarboxamide;

trans-2-[3,5-bis(trifluoromethyl)phenyl]-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)cyclopropanecarboxamide;

2-{{4-chlorophenyl)sulfonyl}-N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)nicotinamide;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)-2-{{1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl}oxy}acetamide;

N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-2-phenoxy-nicotinamide;

N-[cis-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-2-phenoxy-nicotinamide;

3-chloro-N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-4-fluoro-benzamide;

4-chloro-N-[cis-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3-fluoro-benzamide;

3-chloro-N-[cis-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-5-fluoro-benzamide;

N-[cis-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3,4,5-trifluoro-benzamide;

3-chloro-4-fluoro-N-[cis-4-(5-methyl-4-methylamino-pyrimidin-2-ylamino)-cyclohexyl]-benzamide;

4-chloro-N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3-fluoro-benzamide;

3-chloro-N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-5-fluoro-benzamide;

N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3,4,5-trifluoro-benzamide;

N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3,5-difluoro-benzamide; and

2-(3,4-difluoro-phenyl)-N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-acetamide;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

88. The compound according to claim 75 wherein R<sub>1</sub> is selected from the group consisting of:

(i) C<sub>1-16</sub> alkyl, and

C<sub>1-16</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:

•carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••nitro,

••C<sub>1-5</sub> alkylcarbonylamino,

••C<sub>3-6</sub> cycloalkylcarbonylamino,

••C<sub>1-5</sub> alkyl,

••C<sub>1-5</sub> alkyl substituted by halogen,

••C<sub>1-5</sub> alkoxy, and

••C<sub>1-5</sub> alkoxy substituted by halogen,

- (ii) C<sub>3-12</sub> cycloalkyl, and  
C<sub>3-12</sub> cycloalkyl substituted by carbocyclic aryl,
- (iii) carbocyclic aryl, and  
carbocyclic aryl substituted by substituent(s) independently selected from  
the group consisting of:
  - halogen,
  - C<sub>1-10</sub> alkyl,
  - C<sub>1-10</sub> alkyl substituted by halogen,
  - C<sub>1-9</sub> alkoxy, and
  - C<sub>1-5</sub> alkylthio,
- (iv) heterocyclyl,

L is Formula (XV);

Y is -C(O)NR<sub>5</sub>-;

R<sub>2</sub> is selected from the group consisting of:

-N(R<sub>2a</sub>)(R<sub>2b</sub>), wherein R<sub>2a</sub> is hydrogen or C<sub>1-5</sub> alkyl and R<sub>2b</sub> is C<sub>1-5</sub> alkyl;

wherein carbocyclic aryl is phenyl or naphthyl;

heterocyclyl is 3,4-dihydro-1*H*-isoquinoliny; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

89. The compound according to claim 88 wherein R<sub>1</sub> is selected from the group consisting of:

- (i) C<sub>1-16</sub> alkyl, and  
C<sub>1-16</sub> alkyl substituted by substituent(s) independently selected from the  
group consisting of:
  - carbocyclic aryl,
  - carbocyclic aryl substituted by substituent(s) independently selected from  
the group consisting of:

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••halogen,

••nitro,

••C<sub>1-5</sub> alkyl,••C<sub>1-5</sub> alkyl substituted by halogen,••C<sub>1-5</sub> alkoxy, and••C<sub>1-5</sub> alkoxy substituted by halogen,(ii) C<sub>3-12</sub> cycloalkyl, andC<sub>3-12</sub> cycloalkyl substituted by carbocyclic aryl,

(iii) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

•C<sub>1-10</sub> alkyl,•C<sub>1-10</sub> alkyl substituted by halogen, and•C<sub>1-9</sub> alkoxy;

R<sub>2</sub> is selected from the group consisting of:

-N(R<sub>2a</sub>)(R<sub>2b</sub>), wherein R<sub>2a</sub> is hydrogen or C<sub>1-5</sub> alkyl and R<sub>2b</sub> is C<sub>1-5</sub> alkyl;

wherein carbocyclic aryl is phenyl or naphthyl;

heterocyclyl is 3,4-dihydro-1*H*-isoquinolinyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

90. The compound according to any one of claims 75, 88, and 89 wherein p is 1 and T is C<sub>1-5</sub> alkyl; R<sub>3</sub> and R<sub>4</sub> are both hydrogen; and A and B are both single bonds; R<sub>5</sub> is hydrogen; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

91. The compound according to claim 1 selected from the group consisting of:

cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}-N-(3-iodobenzyl)cyclohexanecarboxamide;

cis-N-(2,4-dichlorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino} cyclohexanecarboxamide;

cis-N-(2,5-dichlorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino} cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}-N-(4-methylbenzyl)cyclohexanecarboxamide;

cis-N-(3,5-dichlorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino} cyclohexanecarboxamide;

cis-N-(3,5-dimethoxybenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino} cyclohexanecarboxamide;

cis-N-(3-chlorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino} cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}-N-[3-(trifluoromethyl)benzyl]cyclohexanecarboxamide;

cis-N-[3,5-bis(trifluoromethyl)benzyl]-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino} cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}-N-(3-methoxybenzyl)cyclohexanecarboxamide;

cis-N-(4-chlorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino} cyclohexanecarboxamide;

cis-N-(3,4-dichlorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino} cyclohexanecarboxamide;

cis-N-(2,5-difluorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino} cyclohexanecarboxamide;

cis-N-(2,3-difluorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino} cyclohexanecarboxamide;

cis-N-(4-bromo-2-fluorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-N-(2,4-difluorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}-N-(3-methylbenzyl)cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}-N-[2-(trifluoromethoxy)benzyl]cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1R)-1-phenylethyl]cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1S)-1-(4-methylphenyl)ethyl]cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1R)-1-(4-fluorophenyl)ethyl]cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1S)-1-(4-fluorophenyl)ethyl]cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1R)-1-(3-methoxyphenyl)ethyl]cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1S)-1-(3-methoxyphenyl)ethyl]cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1S)-1-(4-methoxyphenyl)ethyl]cyclohexanecarboxamide;

cis-N-[(1R)-1-(4-chlorophenyl)ethyl]-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-N-[1-(4-bromophenyl)ethyl]-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1R)-1-(4-nitrophenyl)ethyl]cyclohexanecarboxamide;



cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1S)-1-(4-nitrophenyl)ethyl]cyclohexanecarboxamide;

cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-(3-fluorophenyl)cyclohexanecarboxamide;

cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-(3-methoxyphenyl)cyclohexanecarboxamide;

cis-N-(3-chlorophenyl)-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1S,2R)-2-phenylcyclopropyl]cyclohexanecarboxamide;

cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[4-(trifluoromethyl)phenyl]cyclohexanecarboxamide;

cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}-N-[(1R)-1-(3-methoxyphenyl)ethyl]cyclohexanecarboxamide;

cis-N-[(1S)-1-(4-chlorophenyl)ethyl]-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-N-benzyl-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}-N-(4-fluorobenzyl)cyclohexanecarboxamide;

cis-N-(3,4-difluorobenzyl)-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}-N-[(1S)-1-(4-methoxyphenyl)ethyl]cyclohexanecarboxamide;

cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}-N-[(1S)-1-(3-methoxyphenyl)ethyl]cyclohexanecarboxamide;

cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}-N-[(1R)-1-(4-fluorophenyl)ethyl]cyclohexanecarboxamide;

cis-N-[(1R)-1-(4-chlorophenyl)ethyl]-4-[[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino]cyclohexanecarboxamide;

cis-4-[[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino]-N-[(1S)-1-(1-naphthyl)ethyl]cyclohexanecarboxamide;

cis-N-[(1R)-1-(4-bromophenyl)ethyl]-4-[[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino]cyclohexanecarboxamide;

cis-N-[(1S)-1-(4-bromophenyl)ethyl]-4-[[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino]cyclohexanecarboxamide;

cis-4-[[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino]-N-[(1S)-1-[4-(trifluoromethoxy)phenyl]ethyl]cyclohexanecarboxamide;

cis-4-[[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino]-N-[(1R)-1-(2-fluorophenyl)ethyl]cyclohexanecarboxamide;

cis-N-[(1S)-1-[3,5-bis(trifluoromethyl)phenyl]ethyl]-4-[[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino]cyclohexanecarboxamide;

4-[[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino]-N-[(1S)-1-[3-(trifluoromethyl)phenyl]ethyl]cyclohexanecarboxamide;

4-[[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino]-N-[(1S)-1-[2-(trifluoromethyl)phenyl]ethyl]cyclohexanecarboxamide;

cis-4-[[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino]-N-[(1R)-1-[4-(trifluoromethoxy)phenyl]ethyl]cyclohexanecarboxamide;

cis-N-[(1S)-1-(4-chlorophenyl)ethyl]-4-[[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino]cyclohexanecarboxamide;

cis-N-[(1R)-1-(4-chlorophenyl)ethyl]-4-[[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino]cyclohexanecarboxamide;

cis-N-[1-(4-chlorophenyl)-1-methylethyl]-4-[[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino]cyclohexanecarboxamide; and

cis-N-[[1-[3,5-bis(trifluoromethyl)phenyl]-1-methylethyl]-4-[[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino]cyclohexanecarboxamide;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

92. The compound according to claim 1 selected from the group consisting of:
- cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}-N-(3-iodobenzyl)cyclohexanecarboxamide;
  - cis-N-(2,4-dichlorobenzyl)-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;
  - cis-N-(2,5-dichlorobenzyl)-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;
  - cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}-N-(4-methylbenzyl)cyclohexanecarboxamide;
  - cis-N-(3,5-dichlorobenzyl)-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;
  - cis-N-(3,5-dimethoxybenzyl)-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;
  - cis-N-(3-chlorobenzyl)-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;
  - cis-N-[3,5-bis(trifluoromethyl)benzyl]-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;
  - cis-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}-N-(3-methoxybenzyl)cyclohexanecarboxamide;
  - cis-N-(4-chlorobenzyl)-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;
  - cis-N-(3,4-dichlorobenzyl)-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;
  - cis-N-(2,5-difluorobenzyl)-4-{{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-N-(2,3-difluorobenzyl)-4-{{4-(dimethylamino)-6-methylpyrimidin-2-yl}amino}cyclohexanecarboxamide;

cis-N-(4-bromo-2-fluorobenzyl)-4-{{4-(dimethylamino)-6-methylpyrimidin-2-yl}amino}cyclohexanecarboxamide;

cis-N-(2,4-difluorobenzyl)-4-{{4-(dimethylamino)-6-methylpyrimidin-2-yl}amino}cyclohexanecarboxamide;

cis-4-{{4-(dimethylamino)-6-methylpyrimidin-2-yl}amino}-N-(3-methylbenzyl)cyclohexanecarboxamide;

cis-4-{{4-(dimethylamino)-6-methylpyrimidin-2-yl}amino}-N-[2-(trifluoromethoxy)benzyl]cyclohexanecarboxamide;

cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}-N-[(1S)-1-(4-methylphenyl)ethyl]cyclohexanecarboxamide;

cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}-N-[(1R)-1-(4-fluorophenyl)ethyl]cyclohexanecarboxamide;

cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}-N-[(1R)-1-(3-methoxyphenyl)ethyl]cyclohexanecarboxamide;

cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}-N-[(1S)-1-(3-methoxyphenyl)ethyl]cyclohexanecarboxamide;

cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}-N-[(1S)-1-(4-methoxyphenyl)ethyl]cyclohexanecarboxamide;

cis-N-[(1R)-1-(4-chlorophenyl)ethyl]-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexanecarboxamide;

cis-N-[1-(4-bromophenyl)ethyl]-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexanecarboxamide;

cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}-N-[(1R)-1-(4-nitrophenyl)ethyl]cyclohexanecarboxamide;

cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}-N-(3-methoxyphenyl)cyclohexanecarboxamide;

cis-N-(3-chlorophenyl)-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexanecarboxamide;

cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}-N-[(1S,2R)-2-phenylcyclopropyl]cyclohexanecarboxamide;

cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}-N-[4-(trifluoromethyl)phenyl]cyclohexanecarboxamide;

cis-N-[(1S)-1-(4-chlorophenyl)ethyl]-4-{{4-(dimethylamino)-6-methylpyrimidin-2-yl}amino}cyclohexanecarboxamide;

cis-N-(3,4-difluorobenzyl)-4-{{4-(dimethylamino)-6-methylpyrimidin-2-yl}amino}cyclohexanecarboxamide;

cis-4-{{4-(dimethylamino)-6-methylpyrimidin-2-yl}amino}-N-[(1S)-1-(4-methoxyphenyl)ethyl]cyclohexanecarboxamide;

cis-4-{{4-(dimethylamino)-6-methylpyrimidin-2-yl}amino}-N-[(1S)-1-(3-methoxyphenyl)ethyl]cyclohexanecarboxamide;

cis-N-[(1R)-1-(4-chlorophenyl)ethyl]-4-{{4-(dimethylamino)-6-methylpyrimidin-2-yl}amino}cyclohexanecarboxamide;

cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}-N-[(1S)-1-(1-naphthyl)ethyl]cyclohexanecarboxamide;

cis-N-[(1S)-1-(4-bromophenyl)ethyl]-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexanecarboxamide;

cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}-N-[(1S)-1-[4-(trifluoromethoxy)phenyl]ethyl]cyclohexanecarboxamide;

cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}-N-[(1R)-1-(2-fluorophenyl)ethyl]cyclohexanecarboxamide;

cis-N-[(1S)-1-[3,5-bis(trifluoromethyl)phenyl]ethyl]-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexanecarboxamide;

4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}-N-[(1S)-1-[3-(trifluoromethyl)phenyl]ethyl]cyclohexanecarboxamide;

4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-{{(1S)-1-[2-(trifluoromethyl)phenyl]ethyl}}cyclohexanecarboxamide; and  
 cis-N-[(1R)-1-(4-chlorophenyl)ethyl]-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;  
 or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

93. The compound according to claim 75 wherein R<sub>1</sub> is selected from the group consisting of:

- (i) C<sub>1-16</sub> alkyl, and  
 C<sub>1-16</sub> alkyl substituted by substituent(s) independently selected from the group consisting of:
  - carbocyclic aryl,
  - carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
    - halogen,
    - C<sub>1-5</sub> alkyl, and
    - C<sub>1-5</sub> alkyl substituted by halogen,
- (ii) C<sub>3-12</sub> cycloalkyl, and  
 C<sub>3-12</sub> cycloalkyl substituted by substituent(s) independently selected from the group consisting of:
  - carbocyclic aryl, and
  - carbocyclic aryl substituted by halogen,
- (iii) carbocyclic aryl, and  
 carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
  - halogen,
  - C<sub>1-10</sub> alkyl,
  - C<sub>1-10</sub> alkyl substituted by halogen,
  - C<sub>1-9</sub> alkoxy,

•C<sub>1-9</sub> alkoxy substituted by substituent(s) independently selected from the group consisting of:

•halogen, and

•carbocyclic aryl,

L is Formula (VII);

Y is -C(O)NR<sub>5</sub>;

R<sub>2</sub> is -N(R<sub>2a</sub>)(R<sub>2b</sub>) wherein R<sub>2a</sub> is hydrogen or C<sub>1-5</sub> alkyl and R<sub>2b</sub> is C<sub>1-5</sub> alkyl;

wherein carbocyclic aryl is phenyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

94. The compound according to claim 75 or 93 wherein p is 1 or 2 and each T is independently C<sub>1-5</sub> alkyl; R<sub>3</sub> is hydrogen; R<sub>4</sub> is hydrogen or C<sub>1-5</sub> alkyl; A and B are both single bonds; R<sub>5</sub> is hydrogen; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

95. The compound according to claim 1 selected from the group consisting of:

N-(3,4-dimethoxyphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)urea;

N-(3-chlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methylurea;

N-(3,4-dichlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methylurea;

N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methyl-N-(3-methylphenyl)urea;

N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methyl-N-(4-methylphenyl)urea;

N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-(3-fluorophenyl)-N-methylurea;

N'-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-N-(4-fluorophenyl)-N-methylurea;

N-(4-chlorophenyl)-N'-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-N-methylurea;

N-(3,4-difluorophenyl)-N'-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-N-methylurea;

N'-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-N-(3-methoxyphenyl)-N-methylurea;

N'-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-N-(4-methoxyphenyl)-N-methylurea;

N-{1-[3,5-bis(trifluoromethyl)phenyl]-1-methylethyl}-N'-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)urea;

N-[1-(4-chlorophenyl)-1-methylethyl]-N'-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)urea;

N-[1-(4-chlorophenyl)-1-methylethyl]-N'-(cis-4-{{4-(dimethylamino)-6-methylpyrimidin-2-yl}amino}cyclohexyl)urea;

N-[1-(4-chlorophenyl)-1-methylethyl]-N'-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-N-methylurea;

N-[1-(4-chlorophenyl)-1-methylethyl]-N'-(cis-4-{{4-(dimethylamino)-6-methylpyrimidin-2-yl}amino}cyclohexyl)-N-methylurea;

N-[1-(4-chlorophenyl)cyclopropyl]-N'-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-N-methylurea;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-N'-(3-methoxyphenyl)urea;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-N'-(3-methoxyphenyl)urea;

N-(3,4-dimethoxyphenyl)-N'-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)urea;



N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N'-(4-fluorophenyl)urea;

N-(3,4-difluorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N'-(2-(trifluoromethoxy)phenyl)urea;

N-(4-chlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea;

N-[3,5-bis(trifluoromethyl)phenyl]-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea;

N-(4-bromophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N'-(2-methylphenyl)urea;

N-benzyl-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea;

N-[2-chloro-6-(trifluoromethyl)phenyl]-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N'-(2,4,6-trichlorophenyl)urea;

N-(2,4-dichlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methylurea;

N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methyl-N-[2-(trifluoromethoxy)phenyl]urea;

N-(4-chlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-ethylurea;

N-[3,5-bis(trifluoromethyl)phenyl]-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-ethylurea;

N'-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-N-(2-fluorophenyl)-N-methylurea;

N'-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-N-ethyl-N-[2-(trifluoromethoxy)phenyl]urea;

N'-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-N-ethyl-N-phenylurea;

N'-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-N-ethyl-N-(3-methylphenyl)urea; and

1-(2,3-dichloro-phenyl)-3-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexylmethyl]-urea;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

96. The compound according to claim 1 selected from the group consisting of:

N-(3,4-dimethoxyphenyl)-N'-(cis-4-{{4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl}amino}cyclohexyl)urea;

N-(3-chlorophenyl)-N'-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-N-methylurea;

N-(3,4-dichlorophenyl)-N'-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-N-methylurea;

N'-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-N-methyl-N-(3-methylphenyl)urea;

N'-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-N-methyl-N-(4-methylphenyl)urea;

N'-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-N-(3-fluorophenyl)-N-methylurea;

N'-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino}cyclohexyl)-N-(4-fluorophenyl)-N-methylurea;

N-(4-chlorophenyl)-N'-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)-N-methylurea;

N-(3,4-difluorophenyl)-N'-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)-N-methylurea;

N'-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)-N-(3-methoxyphenyl)-N-methylurea;

N'-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)-N-(4-methoxyphenyl)-N-methylurea;

N-[1-(4-chlorophenyl)-1-methylethyl]-N'-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)urea;

N-[1-(4-chlorophenyl)-1-methylethyl]-N'-(cis-4-{{4-(dimethylamino)-6-methylpyrimidin-2-yl}amino} cyclohexyl)urea;

N-[1-(4-chlorophenyl)-1-methylethyl]-N'-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)-N-methylurea;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)-N'-(4-fluorophenyl)urea;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)-N'-(2-(trifluoromethoxy)phenyl)urea;

N-(4-bromophenyl)-N'-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)urea;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)-N'-(2-methylphenyl)urea;

N-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)-N'-(2,4,6-trichlorophenyl)urea;

N-(2,4-dichlorophenyl)-N'-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)-N-methylurea;

N'-(cis-4-{{4-(dimethylamino)-5-methylpyrimidin-2-yl}amino} cyclohexyl)-N-methyl-N-[2-(trifluoromethoxy)phenyl]urea;

N-(4-chlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-ethylurea;

N-[3,5-bis(trifluoromethyl)phenyl]-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-ethylurea;

N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-ethyl-N-phenylurea;

N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-ethyl-N-(3-methylphenyl)urea; and

1-(2,3-dichloro-phenyl)-3-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexylmethyl]-urea;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

97. The compound according to claim 75 wherein R<sub>1</sub> is selected from the group consisting of:

heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

•carbocyclic aryloxy,

•carbocyclic aryloxy substituted by substituent(s) independently selected from the group consisting of:

••halogen, and

••C<sub>1-5</sub> alkoxy,

L is Formula (X) or (XI);

Y is -C(O)-;

R<sub>2</sub> is -N(R<sub>2a</sub>)(R<sub>2b</sub>) wherein R<sub>2a</sub> is C<sub>1-5</sub> alkyl and R<sub>2b</sub> is C<sub>1-5</sub> alkyl;

wherein carbocyclic aryl is phenyl;

heterocyclyl is pyridyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

98. The compound according to claim 75 or 97 wherein p is 1 and T is C<sub>1-5</sub> alkyl; R<sub>3</sub> and R<sub>4</sub> are both hydrogen; A is a single bond and B is -CH<sub>2</sub>-;  
or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
99. The compound according to claim 75 wherein R<sub>1</sub> is selected from the group consisting of:
- (i) carbocyclic aryl, and  
carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
    - halogen,
    - C<sub>1-10</sub> alkyl, and
    - C<sub>1-10</sub> alkyl substituted by halogen,
  - (ii) heterocyclyl,
- L is Formula (VII); and  
Y is -S(O)<sub>2</sub>-;  
R<sub>2</sub> is -N(R<sub>2a</sub>)(R<sub>2b</sub>) wherein R<sub>2a</sub> is C<sub>1-5</sub> alkyl and R<sub>2b</sub> is C<sub>1-5</sub> alkyl;  
wherein carbocyclic aryl is phenyl or naphthyl;  
heterocyclyl is furyl; and  
halogen is fluoro, chloro, bromo, or iodo;  
or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
100. The compound according to any one of claims 75 or 99 wherein p is 1 and T is C<sub>1-5</sub> alkyl;  
R<sub>3</sub> and R<sub>4</sub> are both hydrogen, and A and B are both single bonds;  
or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
101. The compound according to claim 1 is:  
4-chloro-N-(cis-4-{{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl}benzenesulfonamide;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

102. The compound according to claim 1 wherein  $R_1$  is selected from hydrogen,  $-\text{CO}_2^1\text{Bu}$ , or  $-\text{CO}_2\text{Bn}$  (Bn is a benzyl group);

$R_2$  is selected from the group consisting of:

hydrogen, halogen, hydroxy, carboxy, carbamoyl, amino,  $\text{C}_{1-5}$  alkyl,  $\text{C}_{1-5}$  alkyl substituted by halogen,  $\text{C}_{1-5}$  alkyl substituted by hydroxy,  $\text{C}_{1-5}$  alkyl substituted by carboxy,  $\text{C}_{1-5}$  alkyl substituted by carbamoyl,  $\text{C}_{1-5}$  alkoxy,  $\text{C}_{1-5}$  alkoxy substituted by halogen,  $-\text{N}(\text{R}_{2a})(\text{R}_{2b})$ ;

wherein  $\text{R}_{2a}$  is hydrogen or  $\text{C}_{1-5}$  alkyl and  $\text{R}_{2b}$  is  $\text{C}_{1-5}$  alkyl,  $\text{C}_{3-6}$  cycloalkyl, or  $\text{C}_{1-5}$  alkyl substituted by substituent(s) independently selected from the group consisting of:

- halogen,
- hydroxy,
- carboxy,
- carbamoyl,
- $\text{C}_{1-5}$  alkoxy,
- amino, and
- $\text{C}_{3-6}$  cycloalkyl;

or  $R_2$  is methylamino or dimethylamino when Q is Formula (II);

Each T is independently selected from the group consisting of halogen, hydroxy, carboxy, carbamoyl, amino, cyano, nitro,  $\text{C}_{1-5}$  alkyl,  $\text{C}_{1-5}$  alkyl substituted by halogen,  $\text{C}_{1-5}$  alkyl substituted by hydroxy,  $\text{C}_{1-5}$  alkyl substituted by carboxy,  $\text{C}_{1-5}$  alkyl substituted by carbamoyl,  $\text{C}_{2-5}$  alkenyl,  $\text{C}_{2-5}$  alkynyl,  $\text{C}_{3-6}$  cycloalkyl,  $\text{C}_{1-5}$  alkoxy,  $\text{C}_{1-5}$  alkoxy substituted by halogen, carbocyclic aryl, heterocyclyl, and  $-\text{N}(\text{R}_{2a})(\text{R}_{2b})$ ;

p is 0, 1, 2, 3, 4 or 5;

L is selected from the group consisting of Formula (VII), (X), (XI), (XV), (XVIII), or (XIX): wherein  $R_3$  and  $R_4$  are independently hydrogen or  $C_{1-5}$  alkyl; and A and B are independently a single bond or  $-CH_2-$ ; and Y is a single bond; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

103. A pharmaceutical composition comprising a therapeutically effective amount of a compound according to any one of claims 1 to 102 in combination with a pharmaceutically acceptable carrier.
104. A method for the prophylaxis or treatment of improving memory function, sleeping and arousal, anxiety, depression, mood disorders, seizure, obesity, diabetes, appetite and eating disorders, cardiovascular disease, hypertension, dyslipidemia, myocardial infarction, binge eating disorders including bulimia, anorexia, mental disorders including manic depression, schizophrenia, delirium, dementia, stress, cognitive disorders, attention deficit disorder, substance abuse disorders and dyskinesias including Parkinson's disease, epilepsy, and addiction comprising administering to an individual suffering from said condition a therapeutically effective amount of a compound according to any one of claims 1 to 102 or a pharmaceutical composition according to claim 103.
105. A method for the prophylaxis or treatment of an eating disorder, obesity or an obesity related disorder comprising administering to an individual suffering from said condition a therapeutically effective amount of a compound according to any one of claims 1 to 102 or a pharmaceutical composition according to claim 103.
106. A method for the prophylaxis or treatment of anxiety, depression, schizophrenia, addiction, or epilepsy comprising administering to an individual suffering from said condition a therapeutically effective amount of a compound according to any one of claims 1 to 102 or

a pharmaceutical composition according to claim 103.

107. A compound according to any one of claims 1 to 102 or a pharmaceutical composition according to claim 103 for use in a method of treatment of the human or animal body by therapy.
108. A compound according to any one of claims 1 to 102 or a pharmaceutical composition according to claim 103 for use in a method of prophylaxis or treatment of an eating disorder, obesity or an obesity related disorder of the human or animal body by therapy.
109. A compound according to any one of claims 1 to 102 or a pharmaceutical composition according to claim 103 for use in a method of prophylaxis or treatment of anxiety, depression, schizophrenia, addiction, or epilepsy of the human or animal body by therapy.
110. A compound according to any one of claims 1 to 102 for the manufacture of a medicament for use in the prophylaxis or treatment of an eating disorder, obesity or obesity related disorders.
111. A compound according to any one of claims 1 to 102 for the manufacture of a medicament for use in the prophylaxis or treatment of anxiety, depression, schizophrenia, addiction, or epilepsy.
112. A method of producing a pharmaceutical composition comprising admixing a compound according to any one of claims 1 to 102 and a pharmaceutically acceptable carrier.



## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP 2004/004624

A. CLASSIFICATION OF SUBJECT MATTER		
Int.Cl.: C07D215/42, 215/38, 239/28, 239/72, A61K31/47, 31/505, A61P3/04, 25/00, 9/00, 43/00		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols)		
Int.Cl.: C07D215/42, 215/38, 239/28, 239/72, A61K31/47, 31/505		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Japanese Utility Model Gazette 1923-1996, Japanese Publication of Unexamined Utility Model Applications 1991-2004, Japanese Registered Utility Model Gazette 1991-2004, Japanese Gazette Containing the Utility Model 1996-2004		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) REGISTRY (STN), COMPUS (STN)		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 2002-356471 A (TANABE SEIYAKU CO., LTD.) 2002.12.13 See Claims, Paragraph (0004), Example 1a-7-11,	1, 2, 52-74, 103, 107-112
Y	20, 64-67, 77, 86, 87 &WO 2002/030891 A1 &EP 1325910 A1 &US 2004/063935 A1 &AU 2001094197 A	3-51, 75-102
X	WO 2001/096295 A2 (NOVARTIS AG) 2001.12.20 See Claims, Example 20	1, 2, 52-74, 103, 107-112
Y	&JP 2004-503531 A &EP 1296974 A2 &US 2002/193390 A1	3-51, 75-102
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search 16.07.2004		Date of mailing of the international search report 17.8.2004
Name and mailing address of the ISA/IP Japan Patent Office 3-4-3, Kasumigaseki, Chiyoda-ku, Tokyo 100-8915, Japan		Authorized officer KAYOKO EMOTO 4P 9638 Telephone No. +81-3-3581-1101 Ext. 3492

## INTERNATIONALSEARCHREPORT

International application No.

PCT/JP2004/004624

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 07-504408 A (JANSSEN PHARMACEUTICA N.V.) 1995.05.18 See Claims, Compound No.122,123	1,2,52-74, 103,107-112
Y	GWO 93/17017 A1 &EP 639192 A1 &US 5541180 A	3-51,75-102
X	WUSTROW, David et al.,Aminopyrimidines with High Affinity for Both Serotonin and Dopamine Receptors,	1,2,52-74, 103,107-112
Y	J. Med. Chem., (1998), Vol.41, No.5, p.760-771	3-51,75-102
PX	WO 2004/004726 A1 (ASTRAZENECA AB) 2004.01.15 See the Entire Document (Family:None)	1-103,107- 112
PX	WO 2003/070244 A1 (ABBOTT LABORATORIES) 2003.08.28 See the Entire Document (Family:None)	1-103,107- 112
PX	WO 2003/053933 A1 (F.HOFFMANN-LA ROCHE AG) 2003.08.28 See the Entire Document &US 2003/186984 A1	1-103,107- 112
PX	WO 2003/028641 A2 (TAISHO PHARMACEUTICAL CO.,LTD.) 2003.04.10 See the Entire Document &EP 1432693 A2	1-103,107- 112

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/JP 2004/004624**Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 104-106  
because they relate to subject matter not required to be searched by this Authority, namely:  

Claims 104-106 pertain to a method for treatment of the human body by therapy.
2. ☐ Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:

Formula (I), Q-L-Y-R1, in claim 1 involves a great number of compounds. However, the common structure among those compounds does not appear to be a significant structural element, since it is disclosed in documents such as JP 2002-356471 A, WO 2001/096295 A2 and JP 07-504408 A (see Box C of this report). Therefore, the inventions related to those compounds are not deemed to form a single general inventive concept.

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.  
☐ No protest accompanied the payment of additional search fees.